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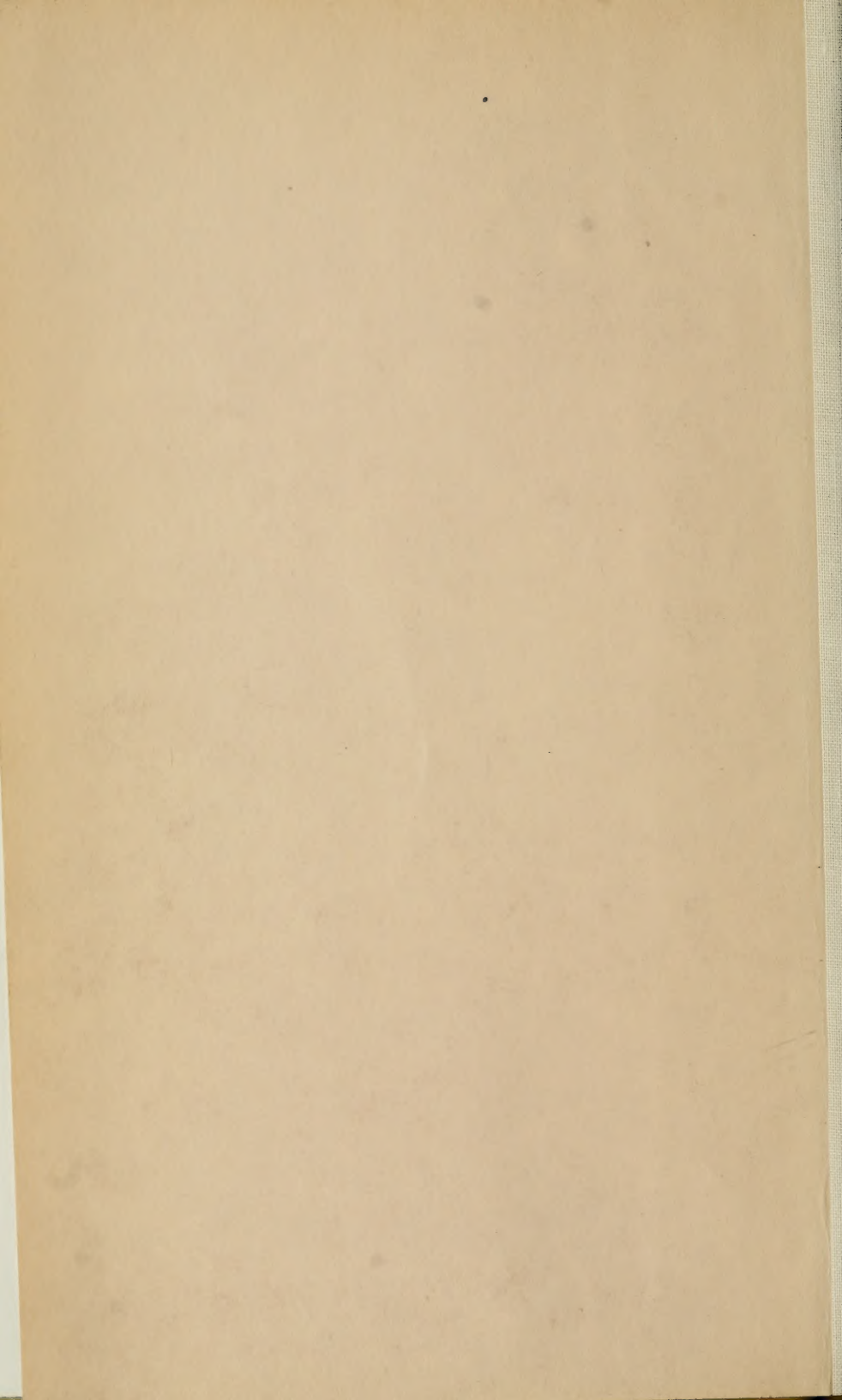
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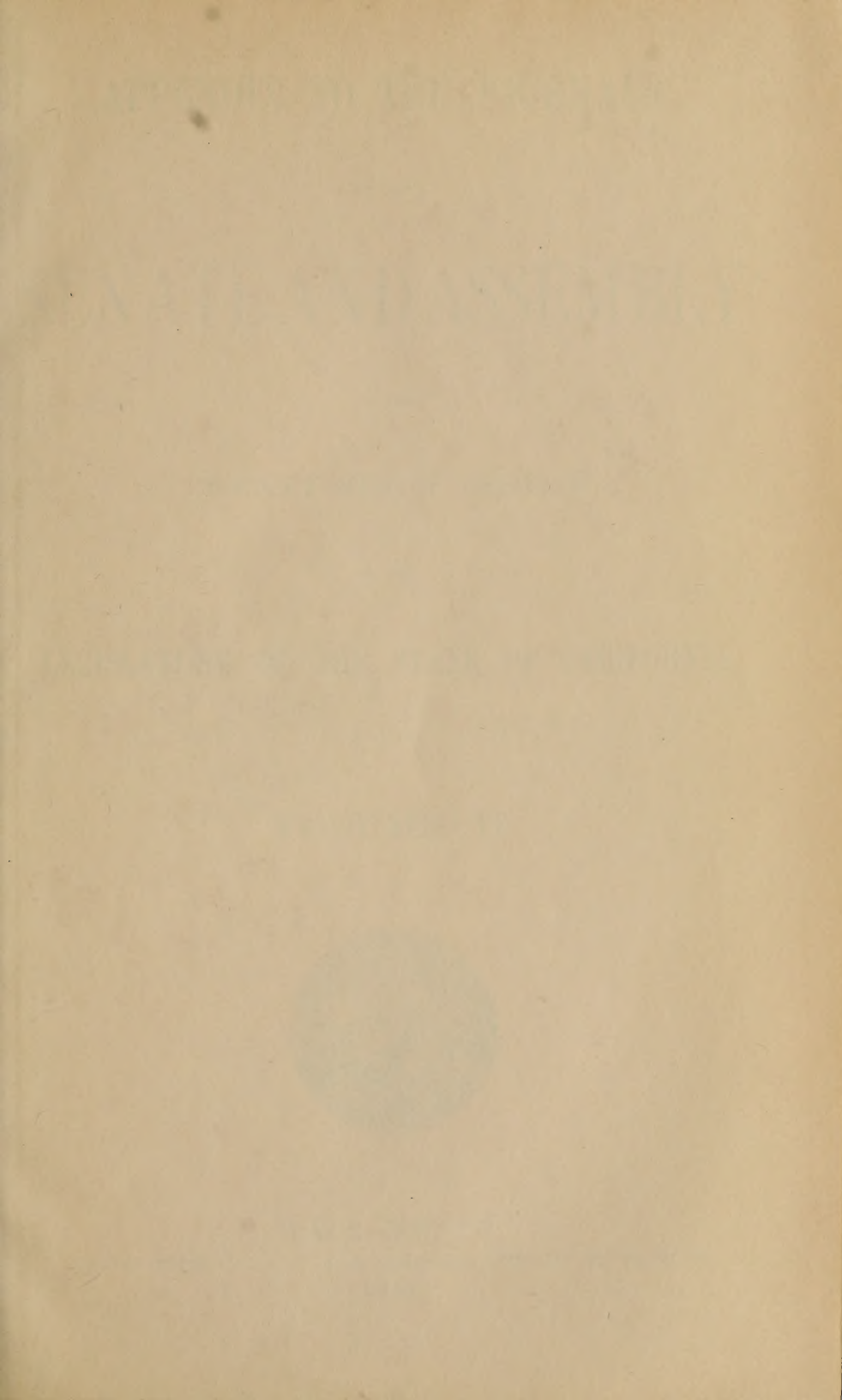


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APPENDIX TO THE JOURNALS
OF THE
SENATE AND ASSEMBLY

OF THE
TWENTY-NINTH SESSION

OF THE
LEGISLATURE OF THE STATE OF CALIFORNIA.

VOLUME II.



SACRAMENTO:
STATE OFFICE, : : : : A. J. JOHNSTON, SUPT. STATE PRINTING.
1891.

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ANNUAL REPORT

OF THE

SECRETARY TO THE BOARD OF REGENTS

OF THE

UNIVERSITY OF CALIFORNIA,

FOR THE YEAR ENDING JUNE 30, 1890.



SACRAMENTO:

STATE OFFICE, : : : : : J. D. YOUNG, SUPT. STATE PRINTING.

1890.

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ANNUAL REPORT

OF THE

SECRETARY TO THE BOARD OF REGENTS OF THE UNIVERSITY OF CALIFORNIA.

To the honorable the Regents of the University of California:

GENTLEMEN: I have the honor to submit my report for the year ending June 30, 1890.

BOARD OF REGENTS.

EX OFFICIO REGENTS.

His Excellency R. W. Waterman, Sacramento, Governor, ex officio President of the Board.
His Honor Stephen M. White, Los Angeles..... Lieutenant-Governor.
Hon. Robert Howe, Sonoma..... Speaker of the Assembly.
Hon. Ira G. Hoitt, A. M., Sacramento..... State Superintendent of Public Instruction.
Hon. Christopher Green, Sacramento..... President of the State Agricultural Society.
David Kerr, Esq., 47-49 Beale Street, S. F. President of the Mechanics Institute.
Horace Davis, LL.D., San Francisco..... President of the University.

APPOINTED REGENTS.

Horatio Stebbins, 1609 Larkin Street, San Francisco..... Term expires 1894.
Louis Sloss, Jr., 312 Sansome Street, San Francisco..... Term expires 1894.
J. West Martin, Union Bank, Oakland..... Term expires 1898.
Andrew S. Hallidie, 9 Fremont Street, San Francisco..... Term expires 1892.
William T. Wallace, 799 Van Ness Avenue, San Francisco..... Term expires 1902.
John Lyman Beard, Warm Springs, Alameda County..... Term expires 1892.
Timothy Guy Phelps, Custom House, San Francisco..... Term expires 1896.
Isaias William Hellman, Nevada Bank, San Francisco..... Term expires 1902.
George Thomas Marye, Jr., 234 Montgomery Street, San Francisco..... Term expires 1898.
Arthur Rodgers, 309 Montgomery Street, San Francisco..... Term expires 1906.
George Jennings Ainsworth, North Temescal..... Term expires 1900.
Delphin Michael Delmas, 310 Pine Street, San Francisco..... Term expires 1900.
Albert Miller, 532 California Street, San Francisco..... Term expires 1906.
Columbus Bartlett, 12 Montgomery Street, San Francisco..... Term expires 1896.
Charles Frederick Crocker, cor. Fourth and Townsend Streets, S. F. Term expires 1904.
James Franklin Houghton, 216 Sansome Street, San Francisco..... Term expires 1904.

Regular meetings of the Board of Regents are held fourteen times a year, viz.: on the second Tuesday in each month, and on the last Tuesday in May, and on the Tuesday preceding the last Wednesday in June.

April 1, 1890, His Excellency Governor R. W. Waterman appointed Louis Sloss, Jr., in the place of John S. Hager, deceased.

STANDING COMMITTEES.

For the Year ending June 30, 1890.

Endowment, Finance, and Auditing.—Regents Hallidie, Stebbins, and Marye.

Grounds, Buildings, and Other Property.—Regents Martin, Phelps and Ainsworth.

Law.—Regents Wallace, Rodgers, and —.

Congressional Land Grant.—Regents Rodgers, Beard, and Crocker.

Library and Museum.—Regents Hager, Stebbins, and Delmas.
Lick Observatory.—Regents Phelps, Hager, and Bartlett.

For the Year ending June 30, 1891.

Finance and Audit.—Regents Hallidie, Miller, and Hellman.
Grounds and Buildings.—Regents Martin, Miller, and Kerr.
Law.—Regents Wallace, Rodgers, and Delmas.
Congressional Land Grant.—Regents Rodgers, Houghton, and Beard.
Lick Observatory.—Regents Phelps, Crocker, and Delmas.
Library and Museum.—Regents Stebbins, Bartlett, and Sloss.
Internal Administration.—Regents Marye, Stebbins, and Bartlett.
United States Agricultural Experiment Stations.—Regents Houghton, Ainsworth, and Martin.

SPECIAL COMMITTEES.

On Instructors in English and in Modern Languages.—Regents Rodgers, Hager, Stebbins, and Davis.

To Place the Ashburner Clock.—Regent Houghton and Committee on Grounds and Buildings.

Regarding Material of State Geological Survey.—Regents Davis and Stebbins.

Leave of Absence of Professor Moses.—Regents Rodgers, Stebbins, and Houghton.

On Selection of a Professor of Military Science and Tactics.—Regents Rodgers, Bartlett, and Houghton.

On Selection of a Room for Board Meetings.—Regents Houghton, Hallidie, and Sloss.

On the Nomination of Standing Committees for the Year.—Regents Hallidie, Martin, and Bartlett.

On the Building of the James Lick Tomb on Mt. Hamilton.—Joint committee consisting of the Committee on Lick Observatory and Finance Committee.

MEMORIAL OF REGENT JOHN SHARPENSTEIN HAGER.

Presented and read by Regent D. M. DELMAS at a meeting of the Board held May 13, 1890.

Regent Delmas presented the following memorial, which was adopted and ordered spread on the minutes:

Hon. John S. Hager, a member of the Board of Regents of the University of California, having died on the nineteenth day of March, 1890, the undersigned, who were appointed a committee for the purpose, beg to submit the following memorial of his private life and public services:

John S. Hager was born in German Valley, Morris County, New Jersey, on March 12, 1818, and had just entered upon his seventy-third year when the hand of death was laid upon him. He came of German ancestors, who, during the religious troubles that beset their native land early in the eighteenth century, expatriated themselves to Holland, whence they shortly afterwards emigrated to this country. They landed at Philadelphia in 1707, and, after a short period of rest, settled in company with a band of fellow exiles upon a stretch of unoccupied land in New Jersey, on the south bank of the Raritan. Their new home shortly became a thriving colony—the German Valley of to-day—and is still in the possession of the descendants of these first settlers. During the war of the Revolution, it furnished many recruits to the patriot army, and General Washington found in its sons some of his bravest soldiers and most capable officers.

The subject of this memorial spent his boyhood on his father's farm, and when old enough to receive instruction, evinced such a marked aptitude for learning that his par-

ents gave him every educational advantage within their power. He was prepared for college, sent to Princeton, and there fulfilled the promise of his youth by obtaining his degree of Bachelor of Arts at the age of eighteen. After graduating he continued his academic studies, to which he added a course of law, under the instruction of Senator J. W. Miller, of Morristown, New Jersey. A couple of years later the degree of Master of Arts was conferred upon him. In 1840 he was admitted to the bar, and commenced to practice at Morristown. Eight years afterwards he started for California.

He arrived here in the spring of 1849, and, after a short residence in San Francisco, joined the Argonauts in their rush to the gold regions. For some months he engaged in trade and mining ventures at Bear River and Gold Run, but tiring of these pursuits and foreseeing the great future of San Francisco, he closed up his business in Nevada County and reached the metropolis in time to celebrate the New Year. He returned here to the profession, and soon secured a large practice. Two years later we find him entering upon the stage of politics as a State Senator. In his new career he won from the start the confidence of his constituents by the unyielding uprightness of his conduct, and the respect of his colleagues by the stern sense of duty which guided all his deliberations.

After the expiration of his term in the Senate, Mr. Hager was in 1855 elected, on the Democratic ticket, District Judge of the Fourth Judicial District, for a full term of six years. His opponents were L. Sawyer, E. W. T. Sloan, and Alexander Campbell, over all of whom he received a majority. During his judicial career he witnessed the splitting of the Democracy by factional disputes, the birth and rapid growth of the Republican party, and among other memorable events, the fierce political contests which resulted in frequent bloody duels between the leaders. No fewer than sixty charges of homicide were tried before him, the most noted one being the case of Charles Cora, charged with the murder of General William H. Richardson, in November, 1855. It was on the trial of this cause that the lamented Colonel Baker made the memorable speech in the prisoner's defense, which brought about a disagreement of the jury. On the civil calendar of his Court, Judge Hager had many important suits to try. Chief among them was the protracted litigation arising out of the failure of the house of Adams & Co.

After the Terry-Broderick duel, when David S. Terry was brought to the bar for his share in the transaction, he granted the motion of his lawyers for a change of venue, on the ground that every intelligent person had formed an opinion in the case, and that it therefore became his bounden duty to do so. Later on, when the Broderick will contest came up before him, he did not hesitate to decide that the pretended will was a forgery—an opinion that has since been very largely shared in by those having an interest in the matter—the decision of the Probate Court to the contrary, notwithstanding.

On retiring from the bench, Judge Hager made a three years' tour of the Old World, including travels through Asia and Africa as well as Europe. Some eighteen months after his return home, in 1865, he made his appearance once more in politics; defeated his Republican opponent, William H. Sharp, and was elected Democratic State Senator at the special election called to fill the vacancy created by the resignation of John H. Redington. For the succeeding sessions he continued to serve in the Senate, and the greater part of the time presided as Chairman of the Judiciary Committee. While he aided, as far as in his power, in advancing bills favorable to the public good, he was the inveterate foe of all that savored of dishonesty.

But it is chiefly as a friend of the University of California that his services as a legislator are gratefully recalled by us on this occasion. To his action and wise management as Chairman of the joint committee of the Senate and Assembly is largely due the framing and the passage of the bill by virtue of whose provisions we are here assembled as a Board of Regents. Nor were his labors limited to the cause of the higher education which may be pursued in the halls of Berkeley; he was ever a wise and discriminating friend of the common schools and a zealous promoter of their efficiency. As a member of this Board from its earliest establishment, we, who for many years have met him in this chamber, will ever recall with grateful memory the unvarying courtesy of his deportment, the wisdom of his counsel, and the unflagging devotion with which he attended to the interests of the University.

In 1872 he succeeded Eugene Casserly as United States Senator and served two sessions. After some years of retirement, he received the appointment of Collector of Customs of San Francisco from President Cleveland, and held the office from 1885 to 1889, in the March of which year he resigned. Of the other political offices he was chosen to fill may be mentioned, membership in the Constitutional Convention of 1879, and the Presidency of the Board of Freeholders elected to prepare a charter for the City of San Francisco in 1882.

Judge Hager married at St. Louis, Mo., in October, 1872, the daughter of James H. Lucas, a leading banker of that place, and leaves his widow and two daughters to mourn his loss. To few men has it been allotted to fill a larger space in public life or reap honors more varied, abundant, and lasting. Whether as a legislator in the early dawn of our State government; as a Judge during the troublesome times of the Vigilance Committee; as a Senator in the halls of the National Congress; as a member of the Convention which gave us our present Constitution; as the chief Federal officer upon this coast under the administration of President Cleveland; or as a life-long member of this Board, the name of John S. Hager is written upon every page of the history of California; consecrated by high public services, whose benefits are reaped by the present generation, and whose memory posterity will not unwillingly recall.

D. M. DELMAS.
ARTHUR RODGERS.
GEORGE T. MARYE, JR.

The Secretary was directed to send a copy to the family of the deceased Regent.

REMARKS BY REGENT DELMAS.

MR. PRESIDENT, AND GENTLEMEN OF THE BOARD OF REGENTS: I cannot permit this occasion to pass without referring, in a few brief words, to the eminent services and the intellectual relations of the late Regent Hager with the University of California, and, likewise, to give expression to the sentiments of respect, and of esteem, and to the feelings of friendship entertained for him by the members of this Board, and also in appreciation of the high estimation in which he was held by the people of the State of California, both as a public man and as an eminent citizen.

We little thought at a recent meeting of the Regents, held in this city, that in less than one week's time we would be called upon to mourn the sudden death of Regent Hager. He was present at that session of the Board, and participated in its deliberations, seemingly in his usual health and vigor, without any indications whatever of so sudden a termination of his life.

Regent Hager was prominent and conspicuous in that galaxy of distinguished men who constituted the first Regency of the University of California. Gentlemen selected from the State at large, with special reference to their high character, and for their recognized ability and learning, to inaugurate and lay deep and strong the foundations of the University in conformity with the law of its organization.

Governor Haight, Holden, Friedlander, Tompkins, Butterworth, Ralston, Felton, Dwinelle, Moss, Merritt, and later, Watt, Casserly, McKee, Winans, Ashburner, Redding; most of these Regents had gone over the dark waters before him, but their names and their fame will be found written upon every page of the records of the University, in testimony of their fidelity to the high trust of the Regency, and will stand as a monument to their memory forever.

Mr. President, in whatever light we view the life and character of Regent Hager, whether as a distinguished member of the judiciary of the City of San Francisco, or as an honest and incorruptible representative of that metropolis in the Senate of the State of California, or as a member of the Constitutional Convention of the State, as a Federal Collector of the Port, as Regent of the University of California, or as Senator of the United States, in every public station to which he had been accredited his official administration was characterized by the most signal ability and unquestionable integrity.

Mr. President, the life and character of Regent Hager was more beautifully exemplified and shown brightest in the sanctuary of his own hospitable home, where, as an affectionate husband, father, and benefactor, his name and his memory will be cherished and revered forever.

Mr. President, eulogy upon the life and character of public men who have discharged all trusts committed to their keeping with perfect fidelity, and have met the full measure of public expectation and approbation in all the relations and responsibilities of life, is eminently proper, and in this sense, and in the sense of a warm personal friendship, I offer this brief tribute to the memory of the late Regent Hager.

TRANSACTIONS OF THE BOARD OF REGENTS.

Room for Board Meetings.

Regent Houghton moved that the committee appointed to select a room for Board meetings be authorized to rent the room in the Williams & Bixby building, 320 Sansome Street, recommended by the committee for \$30 per month, and that the committee be authorized to expend \$500 in furnishing said room. [Carried, May 27, 1890.]

1. AMENDMENTS TO AND INTERPRETATIONS OF BY-LAWS, ETC.

Meetings of the Board of Regents.

Regent Bartlett then called up his notice to amend Article 365 of Regents' Manual, as follows: Amend Article 365 by striking out the words "September, December, March, and the last Tuesday in May," and insert in lieu thereof the words "of each and every month and the last Tuesday in May of each year." [Adopted, May 18, 1890.]

Article 365 as amended now reads: "The regular meetings of the Board shall be on the second Tuesday of each and every month, the last Tuesday in May, and on the Tuesday preceding the last Wednesday of June of each year."

Committee on Internal Administration.

Regent Hallidie called up his notice of December 10, 1889, informing the Board of his intention to move an amendment to Article 374, Regents' Manual, by adding to the list of standing committees, a Committee on Internal Government and Education, and submitted the following:

"Proposed New Committee.—Whose duty shall be to consider and report on questions affecting appointments, promotions, transfers, and the compensation of professors and others on the educational staff of the University, and to confer with the President of the University on matters affecting the government of the various departments of the University."

On motion, the title was made to read "Committee on Internal Administration."

The article as given above and as amended was then adopted. [January 18, 1890.]

A motion to change the number of the Committee on Internal Administration, and make the number five, was lost.

A ballot was then ordered.

The Chair directed the Secretary to collect and count the ballots.

The votes were counted as follows: Marye, 8; Stebbins, 6; Delmas, 7; Bartlett, 2; Hager, 3; Hoitt, 1; Houghton, 1; Rodgers, 4; Hallidie, 1.

Thereupon the Chair announced that Regent Marye, having received eight votes, Regent Delmas, seven votes, and Regent Stebbins, six votes, were elected members of the Committee on Internal Administration. [Adopted, January 18, 1890.]

Revised Edition of the Regents' Manual.

Regent Rodgers offered the following:

Resolved, That the resolution requesting the Law Committee to prepare an appendix to the Regents' Manual be amended by authorizing the preparation of a revised edition of the Regents' Manual, instead of an appendix. [Adopted, January 18, 1890.]

The manuscript of the revised edition is nearly completed.

Committee on Agricultural Experiment Stations.

Regent Hallidie called up his notice to amend Article 374 of the Regents' Manual, and moved that the Committee on United States Agricultural Experiment Stations be made a standing committee. [Adopted, June 24, 1890.]

Diploma Fund, and Preparation of the Register.

Your committee is of the opinion that the provisions of Article 449 of the Regents' Manual, as at present enacted, do not apply to students who were members of the University on June 30, 1886, and who have been members continuously ever since. Your committee is also of the opinion that the final preparation of the University Register, under the resolution adopted November 13, 1888, rests with the Board of Regents, and your committee would therefore recommend that all points of difference hereafter arising in the preparation of the Register be submitted to a committee of the Board, to be appointed for that purpose. [Report of Committee on Internal Administration; concurred in, April 8, 1890.]

2. INVESTMENT IN REAL ESTATE.

Regent Wallace submitted the following report of the Law Committee:

The Law Committee, to whom was referred the note of the counsel of the Board, to the effect that the Board, if it see fit, may invest the funds derived from the Congressional Grant of 150,000 acres in improved real estate, provided that such investment produce an income of not less than 5 per cent per annum upon the amount or amounts so invested, beg leave to report that they concur in the view of the counsel as to the authority of the Board to make such investment. [Adopted, January 18, 1890.]

We recommend the adoption of the following:

Resolved, That the Finance Committee be authorized to negotiate, subject to the approval of the Board of Regents, for the purchase of productive real estate, provided such property can be obtained as will realize an income of not less than 5 per cent net on the principal invested. [Adopted, February 11, 1890.]

Regent Hager moved that the Finance Committee be authorized to consider the propriety of purchasing unproductive real estate. [Approved, March 11, 1890.]

3. ADVANCES.

H. A. Kenyon and other agents for periodicals, reviews, etc., furnish the University with reviews, etc., for less money than the publishers. The University in this way obtains a discount of 20 per cent, the agent

a discount of 10 per cent. The agents can maintain this arrangement only when promptly paid.

We recommend, therefore, that the Treasurer be authorized to advance the money due such bills upon an order of the Finance Committee. [Report of Finance Committee; concurred in, January 18, 1890.]

4. REDEMPTION OF BONDS.

WHEREAS, The State is about to redeem sixty-six bonds of \$1,000 each of the Funded Debt Bonds of 1873, namely, number one hundred and seventy-three (173) to number two hundred and thirty-eight (238), both inclusive; therefore, be it

Resolved, That the State Treasurer is hereby requested to deliver to the Treasurer of the Regents of the University of California, for investment, the said sum of sixty-six thousand (\$66,000) dollars now deposited, or about to be deposited in the State Treasury to the credit of the Consolidated Perpetual Endowment Fund of the University of California, upon the presentation of this resolution, certified by the Secretary and indorsed by the Governor of the State requiring the same. [Adopted, March 11, 1890.]

Resolved, That the Treasurer of the State of California is hereby requested to deliver to Louis Sloss, Treasurer of the University of California, for collection and investment, numbers forty-five (45), forty-six (46), forty-seven (47), and forty-eight (48), of School Bonds of the Town of Alameda, par value of \$500 each, now in the hands of the State Treasurer to the credit of the Consolidated Perpetual Endowment Fund of the University of California, upon presentation of this resolution, certified by the Secretary of the Board of Regents of the University, and indorsed by the Governor of the State requiring the same. [Adopted, April 8, 1890.]

Resolved, That the State Treasurer is hereby requested to deliver to Louis Sloss, Treasurer of the Regents of the University of California, for redemption, the bonds of the City of Santa Clara numbered 167 to 172, inclusive, par value of \$500, total amount \$3,000, now deposited in the State Treasury to the credit of the Consolidated Perpetual Endowment Fund of the University of California, upon the presentation of this resolution, certified by the Secretary, and indorsed by the Governor of the State, requiring the same. [Adopted, June 24, 1890.]

Resolved, That the State Treasurer is hereby requested to deliver to Louis Sloss, Treasurer of the Regents of the University of California, for investment, the sum of \$2,000, being the principal of Plumas County bonds numbers 7 and 9, par value \$1,000 each, now deposited in the State Treasury to the credit of the Consolidated Perpetual Endowment Fund of the University of California, upon the presentation of this resolution, certified by the Secretary, and indorsed by the Governor of the State, requiring the same. [Adopted, June 24, 1890.]

5. INSURANCE.

We recommend that the United States arms in the basement of the North Hall be insured in the sum of \$4,000. [Concurred in, February 11, 1890.]

Regent Hallidie presented the report of the Finance Committee, as follows:

November 20, 1888, the Board insured property at Berkeley to the amount of \$430,830, in policies running three years. The premium paid was \$7,254 80.

February 20, 1890, the policies referred to were canceled, and the return premiums, amounting to \$3,363 06, were deposited with the Treasurer of the University. February 20, 1890, new policies for three years were issued covering \$432,330, including \$4,000 on arms belonging to the United States Government, being an increase of \$1,500 on the amount insured in 1888. The premiums on the sum insured are \$4,323 30. The return premium, with an addition of \$960 24, pays the premium on \$432,330 for three years. There is thus a saving of \$2,931 50 by cancellation and reinsurance. The rate of insurance on the canceled policies was 1.68 per cent for three years, and the rate on the new insurance is 1 per cent for three years. [Approved, March 11, 1890.]

6. RELEASE OF MORTGAGE.

We submit for the consideration of the Board, the application of C. H. Huffman, for a release of two thousand nine hundred and nine acres from his mortgage to the Regents. The mortgage now covers four thousand and seventy-four acres. [Report of Finance Committee; application denied, February 11, 1890.]

C. H. Huffman requests that Sections 31 and 32 of the property covered by his mortgage to the Regents be released.

We recommend that said sections be released upon the payment by him of \$12 per acre on the land to be released. There are one thousand two hundred and eighty acres in the property sought to be released, and the sum to be credited on his mortgage will be \$15,360. [Report of Finance Committee; concurred in, April 8, 1890.]

Regent Hallidie submitted the following forms of certificates, to accompany releases of mortgages:

CERTIFICATE AUTHORIZING RELEASE OF MORTGAGE.

To the Finance Committee of the Regents of the University of California:

-----	} Mortgage to secure promissory note for \$—.
TO	
Regents of the University of California.	Dated—day of—, 18—.
	Recorded,—County, in Vol.— of Mort-
	gages, p.—, on the—day of—, 18—.

I do hereby certify, that the note and mortgage above referred to has matured, and that the principal sum thereby secured, together with all interest and other charges thereon, have been fully paid.

Dated at San Francisco, on this—day of—, 18—.

_____,
Treasurer of the University of California.

To the President and Secretary of the Regents of the University of California:

It appearing from the foregoing statement and certificate of the Treasurer of the University of California that the said mortgage and note therein referred to has matured, and that all the principal sum, interest and charges thereon and thereby secured have been fully paid, the President and Secretary of the Regents of the University of California are hereby requested to execute and deliver a release of said mortgage, pursuant to a resolution of said Board of Regents, duly adopted on the first day of December, 1885, to John B. Mhoon, counsel of the Board, who will, if there is no legal objection, deliver the same to the mortgageor.

Dated at San Francisco, this—day of—, 18—.

_____,
_____,
_____,
Finance Committee of the Regents of the University of California.

[Approved, November 12, 1889.]

7. CLAIM OF W. W. DEAMER.

In the matter of W. W. Deamer's claim for \$75 the following is a statement of the case: Prior to October, 1888, the salary paid to Mr. Deamer as Recorder was \$400 per annum. In July and September, 1888, Mr. Deamer informed the President that he did not wish to be reappointed if the salary could not be increased to \$500 per annum, which statement has never been changed.

Immediately upon receipt of the Secretary's letter (about October 15, 1888) notifying him of his reappointment at the existing salary, Mr. Deamer reported to the President that he could not accept, and at this time he proposed to embody this statement in a letter to Secretary Bonté for the information of the Board of Regents.

President Davis dissuaded him from this step, suggesting that the increase of salary might properly be expected to come before the Board of Regents as a recommendation from the Committee on Salaries. Believing that the President of the University would see that the deficiency would be made good, Mr. Deamer continued.

We therefore recommend that Mr. Deamer's claim for \$75 be paid. [Concurred in, January 18, 1890.]

8. PRINCIPAL OF LAND FUNDS.

That in order to ascertain the exact amount to be credited to the different Congressional grants of land, the Finance Committee is authorized and instructed to have the books of accounts of the Land Department examined to date, and a report made thereon to the Board of Regents. [Report of Finance Committee; concurred in, April 8, 1890.]

9. INTEREST ON DIPLOMA FUND.

Petition of the graduating class for an appropriation of the accrued interest on their diploma deposits to aid in paying the expenditures incident to Class Day Exercises.

Report of the Secretary.

On motion, \$80 was appropriated. [May 13, 1890.]

10. LOST CERTIFICATES OF DEPOSIT.

Report of the Secretary.

The application of W. D. Chapman for return of \$7 90, he having lost his certificate of deposit, was granted, the amount to be paid upon the filing of a bond by the applicant. [February 11, 1890.]

Petition of D. S. Halliday for the balance of \$10, due him on certificate of deposit No. 122, Physical Laboratory. Ordered that the said amount be paid to the applicant upon his executing a satisfactory bond. [March 11, 1890.]

Petition of W. H. Wright for repayment of the balance due him on a lost certificate of deposit in the Chemical Laboratory. Granted, upon

condition that he give a bond satisfactory to the Secretary. [June 24, 1890.]

11. REPORTS OF COMMITTEE ON INTERNAL ADMINISTRATION.

Increase of Salary.

Your committee recommends that E. R. Drew, Assistant in Physics, and W. J. Raymond, Assistant in Physical Laboratory and in Mechanics, be given a salary of \$1,200 per annum, each, from the beginning of the next fiscal year, it being understood that they are to give their whole time to their duties in the University. [Concurred in, April 8, 1890.]

With reference to the application of Dr. Henry Senger for an increase of rank, your committee is of the opinion that all suggestions of promotion in rank should come, in the first instance, to the Board through the President of the University. Your committee recommends an increase in Dr. Senger's pay from \$1,500 to \$1,600 per annum to the consideration of the Finance Committee. [Concurred in, April 8, 1890.]

We recommend that the petition of the Assistant Librarian be granted, and that his salary be increased accordingly from \$75 to \$100 per month, to take effect July 1, 1890. [Concurred in, May 27, 1890.]

We recommend that E. L. Greene, who is now Assistant Professor of Botany at a salary of \$1,500 a year, be given the minimum salary provided for Assistant Professors, namely, salary of \$1,800 a year, commencing July 1, 1890. [Concurred in, June 24, 1890.]

12. REPORTS OF THE LAND COMMITTEE RELATING TO THE CONGRESSIONAL LAND GRANT OF 150,000 ACRES.

Land Agent's Report.

At the request of your committee the Land Agent has prepared an explanatory report and schedule on the condition of all our land grants and sales thereof, which we decree of sufficient importance to recommend its printing. [Ordered printed by State Printer, November 12, 1889.]

Collections.

Resolved, That the counsel of the Board be instructed to collect the principal and interest due from purchasers of land from the University. [Adopted, September 10, 1889.]

Enforcement of Contracts.

Your Committee on Land recommend that the Land Agent and attorney of the Board be instructed to enforce all contracts for the purchase of land. [Concurred in, April 8, 1890.]

Assignments.

We recommend that no assignments be accepted unless of advantage to the University; that when the original applicant is financially responsible, he be held responsible for all money due on land. [Concurred in, January 18, 1890.]

Abandonment of Locations.

R. McGarvey assigned to James Hopkins location Nos. 1733 and 1734. Hopkins now desires to abandon said locations.

We recommend that R. McGarvey be held for the money due on said locations. [Adopted, January 18, 1890.]

Assent to Assignment.

We recommend that the deed of A. A. Wheeler to N. K. Masten, of land covered by location No. 1790, be recognized upon condition that N. K. Masten agree to pay for the same in cash. [Adopted, January 18, 1890.]

Repayment.

We recommend the payment of the claim of T. H. French for \$40, amount paid by him on location No. 1773 $\frac{3}{4}$. The land has never been listed, and the University cannot give title to said land; and that the Secretary be instructed to obtain a release of all claims against the Regents, the release to be prepared by the counsel of the Board. [Adopted, January 18, 1890.]

Claim for Credit.

J. A. Long located the land covered by location No. 1324 and paid \$257 58 thereon. The claim was forfeited to the Regents for non-payment of interest, and sold to one Eby. Eby has assigned to Long, and Long now desires to have the amount paid by him before the land was forfeited, credited to him as a new purchaser on the balance of principal now due.

We recommend that said application be refused. [Concurred in, January 18, 1890.]

Excess Payments.

Return of "Excess Payment."—Resolution offered by Regent Wallace, and petition of James and J. K. Lynch:

The United States land officers designate Government land within the exterior limits of railroad grants as double minimum, for which the purchaser must pay the Government double the ordinary price—that is, \$1 25 per acre in excess. Originally land could not be selected from this class. By the Act of June 8, 1868 (Reg. Man., p. 15), such land could be selected by taking one acre in lieu of two under the original Act. But by Act of March 13, 1871 (Id. 16), such land could be selected acre for acre, provided the State (University) should pay the United States on issuance of patent the extra \$1 25. In some instances the United States land officers assumed a railroad land grant to exist which afterwards was decided invalid, and in the meantime sold land on this assumption at \$2 50 per acre. By an Act of Congress, passed June 16, 1880, it is provided as follows:

"In all cases where parties have paid double minimum price for land, which has afterwards been found not to be within the limits of a railroad grant, the excess of \$1 25 per acre shall in like manner be repaid to the purchaser thereof, or to the heirs or assigns."

In making sales of University lands the Land Agent required the payment of \$1 25 per acre in such cases, in addition to the \$5 per acre,

the regular price of our lands. The sum of \$—— of such excess payments has been collected, of which \$—— have been paid to the Government, and which the resolution mentioned intended to authorize the purchasers from the University to collect under the Congressional Act cited. Of the remainder in our treasury Messrs. Lynch ask \$2,042 28 paid by them on purchases from the University. It will be borne in mind that the University land was granted to the State, and by it their entire disposal was imposed on the Regents. (Reg. Man., p. 84.) The Board, wisely we think, required all purchasers of land to sign a written application or contract, of which there have been two distinct forms. The first was used until 1884, and the second subsequently. The essential difference for our purpose between the forms is that in the first or earlier the applicant agrees to pay \$6 25 per acre (for the land in question), while in the other (Reg. Man., p. 213) he agrees to pay \$5 if minimum, and \$6 25 if double minimum.

In other words, the University sold this class of lands until 1884 by an absolute contract for \$6 25 per acre, and thereafter, on a conditional contract, for \$5 or \$6 25 per acre. Petitioners urge the repayment of the excess, \$1 25 in all cases, under the claim that it was required by the University for the purpose of being paid to the Government, and this now being unnecessary, it should be returned to them. We cannot recognize this claim. The purchaser has no interest in the application of any portion of the purchase money. It is to be noted further, as to the purchases made by James Lynch, contracts extending the time of payment were made in 1882, wherein the amount of unpaid balance, calculated at the rate of \$6 25 per acre, is specified. This was no misrepresentation or mistake caused by the University. The purchaser made his own selection of land, and then agreed to pay therefor \$6 25 per acre, and received and still has what he bought.

We therefore recommend as follows:

1. That said resolution be not passed, being too general.
2. That the following resolution be adopted:

Resolved, First, that purchasers of land under the present form of contract (Art. 468, Regents' Manual, p. 213), upon application to the Land Agent, may be credited with amount of the excess payments made by them, and be paid any balance over their indebtedness, except that such credit shall not be given nor balance paid over in cases where the excess payments have been turned over to the United States land officers, until return of such excess payments to the University.

Second—That the Land Agent is authorized to apply for, and as fast as convenient, to secure the repayment to the University from the United States Land Department of all excess payments, and of all other moneys, if any, to which the University may be entitled.

Third—That the petition of James and J. K. Lynch be denied, except as to applications of J. K. Lynch (Nos. 1769, 1770, and 1771), and that these be adjusted according to the foregoing provisions of this resolution. We add further, that James and J. K. Lynch made similar petitions to those now considered, which, on March 31, 1887, the Board denied. [Adopted, January 18, 1890.]

Demand for Return of Excess.

SAN FRANCISCO, May 27, A. D. 1890.

To the Regents of the University of California:

We, Martin Luther and Jacob Luther, and each of us do hereby most respectfully demand that you pay us the sum of \$6,762 12, heretofore collected by you from us as excess of \$1 25 per acre on what was supposed to be double minimum lands sold by you to us within the district of lands supposed to include a grant of lands by the United States to the Atlantic and Pacific Railroad Company, but within which district no grant was, in fact, made to said railroad company, and which lands so sold by you to us were not, in fact, double minimum lands, which moneys were, therefore, received by you under a mistake, and for the use and benefit of, and in trust for us and each of us.

Yours very respectfully,

MARTIN LUTHER, and JACOB LUTHER.

By J. T. Burke, Mich. Mullany, and Wm. Grant, their attorneys.

SAN FRANCISCO, Cal., May 27, A. D. 1890.

To the Regents of the University of California :

I, J. T. Burke, do hereby most respectfully demand that you pay me the sum of \$11,752 47, heretofore collected by you, in the following portions or sums from the following named persons, viz.: James Lynch, \$1,470 84; E. T. Donnelly, \$2,688 05; James K. Lynch, \$621 53; L. Godchaux, \$1,951 60; M. Brandenstein, \$1,616 81; J. M. Wood, \$50; Charles Ashton, \$150; Jesse D. Carr, \$50; Samuel A. Rachliffe, \$50; Wesley Burnett, \$250; Alexander Coyner, \$113 83; Robert Gordon, \$50; S. B. Emerson, \$141 70; J. Winteral, \$50; Washington Rohrbach, \$200; W. C. Mathers, \$100; R. E. Jack, \$99 03; Lauchlin McDonald, \$50; Peter Donnelly, \$100; José G. Sanchez, \$50; Herman Tompkins, \$50; Fernando R. Farman, \$154 56; Enus Blohm, \$50; Charles Lux, \$795 39, and J. W. Cooper, \$849 13; and I hereby demand the same, as assignee of said persons, and of each of them, and which moneys were heretofore collected by you from said persons as excess of \$1 25 per acre on what was supposed to be double minimum lands sold by you to said persons, or their assignors, within the district of lands supposed to include a grant of lands by the United States to the Atlantic and Pacific Railroad Company, but within which district no grant was, in fact, made to said railroad company, and which lands so sold by you to said persons, or their assignors, were not in fact double minimum lands, and which moneys were, therefore, received by you under a mistake, and for the use and benefit of and in trust for said persons, and their successors in interest, and which successor in interest I now am, as hereinbefore stated.

Yours, very respectfully,

J. T. BURKE.

By Mich. Mullany and Wm. Grant, his attorneys.

On motion, demands denied.

Extension of Time.

We recommend that the application of E. H. Curtis for extension of time in paying for land in locations Nos. 1639 and 1640 be denied. [Concurred in, November 12, 1889.]

John C. Schlarbaum makes application for further time in paying for land purchased by him from the Regents. The applicant was informed January 3, 1887, by the Land Agent, that he could have as long a time as he wished to pay the principal, and that the Regents preferred the interest. He states that he would be compelled to abandon the land if required to pay March 1, 1890. We therefore recommend the extension of time for one year, provided the applicant pays the interest promptly. [Approved, January 18, 1890.]

Sale of Land.

C. Yager offers to purchase the S.W. $\frac{1}{4}$, the S.E. $\frac{1}{4}$ of N.W. $\frac{1}{4}$, and the S.W. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ of Sec. 9, Tp. 14 S., R. 2 E., 240 acres.

We recommend that said land be sold at \$7 50 per acre, cash. [Approved, January 18, 1890.]

C. Lazear offers to purchase location No. 519, covering 80 acres of land in Yuba County, being the S. $\frac{1}{2}$ of S.W. $\frac{1}{4}$ of Sec. 20, Tp. 14 N., R. 4 E., at the rate of \$2 per acre.

We recommend that the land be sold for \$5 50 per acre, cash. If not paid within thirty (30) days he must vacate the land. [Concurred in, January 18, 1890.]

We recommend that A. Flint's application to purchase land covered by location No. 222, and lying in San Luis Obispo County, for \$2 per acre, be declined. [Approved, January 18, 1890.]

Application for Patents.

We recommend that the application of Charles Faulkner for a patent on a portion of the land in locations 421 and 421 $\frac{1}{2}$, purchased from the Regents of the University of California, be denied. [Concurred in, November 12, 1890.]

Your Land Committee reports on the application of the Sierra Lumber Company as follows: On the documents submitted in this matter it appears that the rights of applicants for the land from the Regents having been acquired by the Sierra Lumber Company, we recommend that patents for such lands be issued to such corporation upon the payment of all indebtedness on account thereof. [Adopted, May 27, 1890.]

13. RELATING TO THE ANNUAL BUDGET.

Addition to the Budget of 1889-1890.

We recommend that \$130 be added to the budget of the Department of Physics, Associate Professor Slate in charge. [Report of Finance Committee; concurred in, November 12, 1889.]

An additional appropriation is needed for equipment and repairs. We recommend that \$400 be appropriated. [Report of Finance Committee; recommendation concurred in, April 8, 1890.]

We recommend that the sum of \$500 be added to the apportionment for equipment and repair for the current year. [Report of Finance Committee; concurred in, December 10, 1889.]

Budget of the Year ending June 30, 1891.

The Committee on Finance and Audit have the honor to report that the estimated income for the fiscal year ending June 30, 1891, is as follows:

Interest on State bonds (\$66,000, matures June first)	\$15,090 00
Interest on San Francisco Park and Avenue Improvement bonds	3,000 00
Interest on San Francisco City and County School bonds	1,800 00
Interest on San Francisco Park Improvement bonds	60 00
Interest on Marin County bonds	3,500 00
Interest on Santa Clara County bonds	210 00
Interest on Alameda School bonds	180 00
Interest on Fresno County bonds	875 00
Interest on Kern County bonds	1,050 00
Interest on Plumas County bonds	540 00
Interest on Tehama County bonds	1,475 00
Interest on diverted funds	4,785 00
Interest on mortgages	48,201 12
Interest from deposits in savings banks	5,481 04
Interest on deferred payments for lands	1,686 82
Interest on forfeited seminary lands	22 40
Land fees	250 00
Rents: Cottages, \$1,560; Palmer House, \$720	2,280 00
Chemical Laboratory	1,260 00
Mining Laboratory	100 00
Physical Laboratory	175 00
State University Fund (1 cent tax)	101,733 78
Consolidated Perpetual Endowment Fund, available for investment, \$102,629 68 (including \$66,000 State bonds), of which, say \$80,000, constantly invested at 6 per cent	4,800 00
Special Funds, \$1,279 74, at 6 per cent	256 78
Estimated income (gross)	\$228,796 94
Deduct—	
Interest on Mills Endowment	\$5,290 76
Interest on Reese Library Fund	3,062 50
Interest on Tompkins Endowment	42 50
Interest on Medal Fund	180 00
Interest on Pioche Donation	129 60
	8,705 36
Net estimated income	\$220,091 58

Budget Estimated Disbursements, 1890-91.

Fuel	\$1,000 00
Equipment and repairs	5,000 00
Advertising and printing	300 00
Telegraphing and expressage	500 00
Stationery	250 00
Postage	720 00
Land administration	250 00
Incidental expenses and extra clerk hire	1,000 00
College celebrations	350 00
Official and lecturing expenses	1,000 00
Cottage repairs	500 00
Water (reduced from \$5,000)	2,000 00
Insurance (reduced from \$500)	300 00
Agricultural Department	8,000 00
Engineering and Astronomy	400 00
Chemistry and Chemical Laboratory	2,400 00
Mechanics	300 00
Mines	300 00
Mineralogy	300 00
Military	300 00
Physics and Physical Laboratory	1,000 00
Physical Culture, Gymnasium, and Track	1,500 00
Lick Observatory	5,000 00
Library: Binding (\$800), Periodicals (\$1,200), Prof. Moses (\$500)	2,500 00
Museum (\$600), mountain goats and freight (\$120)	720 00
University Printing Office	500 00
University site improvements (\$13,000), campus (\$2,000)	15,000 00
Amount carried forward	\$51,390 00

Amount brought forward.....		\$51,390 00
Chemical Laboratory Building (\$8,000), fitting up (\$12,000)	\$20,000 00	
Magazine for powder and oils, etc.	1,600 00	
Botanical specimens preservation (\$1,250, less State Geological Survey Fund)	1,000 00	
Salaries of Professors, etc.....	145,099 48	
		<hr/> 167,699 48
Less—		
Mills Professorship.....	\$4,000 00	
Paid by U. S. A. E. S. Fund.....	4,720 00	
		<hr/> 8,720 00
		<hr/> \$210,369 48
Five per cent on income (\$220,091 58)		11,004 58
		<hr/> \$221,374 06
Total estimated income		\$220,091 55
Total estimated disbursements		221,374 06
		<hr/> \$1,282 51
Apparent deficiency.....		

Most of the budget items of disbursements are based on the experience of previous years; we note, however, the following exceptions:

Physical Culture and Gymnasium, \$1,500. About \$2,175 were required in 1889-90, part of which was for apparatus, etc., not needed in 1890-91, but a running track is demanded in the gallery of the gymnasium building.

Lick Observatory, \$5,000. Heretofore \$3,600 has been appropriated, but many buildings need painting, stone walls repairing, and sundry other immediate requirements call for the additional item of \$1,400.

Library, \$2,500. One thousand dollars heretofore recommended will be insufficient, \$800 being required for binding, \$1,200 for periodicals, and \$500 recommended by Library Committee for the purchase of special books by Professor Moses.

Museum, \$720. In addition to the usual amount of \$600, \$120 authorized by the Board for completing the mounting of a mountain goat and freight charges.

University site improvements, \$15,000. The Chairman of Committee on Grounds and Buildings estimates two bridges, \$900; ten dams, \$3,000; pavement, \$3,500; drain pipes, \$1,640; lumber, \$200; labor, \$4,500; and the cost of putting the campus in order is estimated at \$2,000; total, \$15,740.

Chemical Laboratory and fitting up, \$20,000.

Amount deposited in bank for building.....	\$55,000 00
Amount appropriated in above.....	8,000 00
Total	<hr/> \$63,000 00
Contract for construction	\$56,450 00
Extras allowed by Board.....	3,910 00
Architect's fees	3,018 00
Total	<hr/> \$63,378 00

The committee thought that for fitting up the Laboratory, moving, etc., \$12,000 was sufficient—all that could be allowed for the first year.

Magazine for combustibles, \$1,600. The safe storage of explosives and inflammables commends itself to the favorable consideration of the Board as it has to the committee.

Botanical specimens, etc., \$1,000. The great and valuable collections left by the State Geological Survey, we are assured, need prompt atten-

tion in order to preserve them from decay and ruin, and the estimated cost of preserving and arranging them is \$1,300, of which \$250 is in the hands of the Regents from the State Geological Survey Fund. We submit the matter without recommendation.

Numerous other demands received the consideration of the committee, which were denied for want of funds, the most important of which, the proper arrangement in fire-proof vaults of the papers and archives of the University and of the Secretary's office, demands prompt attention.

On motion, \$1,000 was inserted in the budget for the preservation of botanical specimens.

Salaries, \$136,379 48.

Paid for month of April, \$11,995 79, and fixed by the Board, equal to per annum	\$143,949 48
Deducting amounts paid by special funds	8,720 00
	<u>\$135,229 48</u>

The following additions and changes have been recommended by the committee, or occur from changes in the personnel of the educational staff:

Professor Kellogg, returning	\$3,000 00	
Less Professor Howard, retiring	2,400 00	
		\$600 00
Instructor Senger, increase		100 00
Assistant in Department of Astromomy, nine months, at \$20		180 00
Richards, fireman, increase		120 00
Bouse, armorer		150 00
		<u>\$1,150 00</u>

United States Agricultural Experiment Stations:

Receipts, 1890.

From the United States	<u>\$15,000 00</u>
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Disbursements.

Salaries	\$1,840 00
Labor	3,200 00
Buildings	400 00
Chemical apparatus and supplies	250 00
Furniture	150 00
Fencing and drainage	100 00
Freight and expressage	500 00
Incidentals	250 00
Postage and stationery	300 00
Printing	200 00
Supplies	1,100 00
Tools, implements, and machinery	150 00
Scientific instruments	150 00
Traveling	750 00
Water supply	250 00
Unappropriated, subject to decision of Board	2,410 00
	<u>\$15,000 00</u>

The committee has had sixteen meetings, has considered applications for loans, and has audited and examined a large number of vouchers during the year.

The budget, its recommendations and suggestions, as amended, were adopted. [May 27, 1890.]

14. FRANK J. WALTON MEMORIAL FUND.

BERKELEY, January 8, 1889.

To the honorable the Board of Regents of the University of California:

The graduates of the Class of '83 have raised a fund of about \$1,800, to be called the Frank J. Walton Memorial Loan Fund, which they wish to place in your hands as a loan fund for undergraduates, and they respectfully request your honorable body to appoint a committee to consult with the undersigned in regard to the matter.

Respectfully,

JOHN H. HANSEN,
GUY C. EARL,
WALTER COPE,
IDA D. BENFEY,
F. L. BURK,

Committee from Class of '83.

In the matter of the Frank J. Walton Memorial Loan Fund, referred to the Finance Committee at the meeting of the Board held January 8, 1889, your committee recommends the adoption of the following:

The Board of Regents accepts from the members of the Class of '83 the sum of eighteen hundred (\$1,800) dollars, to be held in trust for the purposes hereinafter specified. The fund is to be known as the Frank J. Walton Memorial Loan Fund. It is to be invested by the Regents, and the income only to be loaned to the undergraduate students in the Academic Department at Berkeley, who are studying for degrees, and who have finished half their undergraduate course. The beneficiaries shall be selected by a committee, consisting of the President of the University and two members of the Academic Council, who shall be chosen by the Council for a term of three years. The choice of beneficiaries shall not be made on the ground of scholarship, but shall depend on general character and promise. The amount of the loan to each beneficiary, the term of the notes, and the question of interest, shall be left to the discretion of the said committee. The committee shall report to the Finance Committee of the Regents all receipts and disbursements on account of the fund. The promissory notes of beneficiaries shall be deposited in the office of the Secretary of the Board of Regents, but the names of the beneficiaries shall not be made public. Repayment to beneficiaries and the unused interest shall be reported to the Finance Committee, and added to the principal, and be invested by the Board of Regents. The amounts due beneficiaries shall be paid upon special requisition, signed by the committee and indorsed by the Finance Committee.

In vouchers submitted to the Board of Regents, the names of the beneficiaries shall not be inserted, and in their place shall be placed the names of the members of the Committee of the Faculty, or a majority thereof.

Whenever the repayments with the original fund shall exceed the sum of \$20,000, the committee may, in their discretion, establish out of the surplus, scholarships for undergraduates, or graduates pursuing studies at Berkeley, or make special loans for the use of graduates. [Adopted, November 12, 1889.]

15. THE CUSTODY OF PAPERS.

We recommend the adoption of the following rule as to the custody of papers relating to loans: "In all cases where loans are made, that the mortgage note be deposited with the Treasurer; that the application, the report of the expert, the abstract of title, the opinion of the attorney, and the mortgage be deposited with the Secretary." [Report of the Finance Committee; concurred in, February 11, 1890.]

16. GEOLOGICAL SURVEY MATERIAL.

President Davis, on behalf of the special committee to which was referred the report of the sub-committee on the Geological Survey material, reported as follows: Your committee to whom was referred the report of Messrs. Bonté, Le Conte, Soulé, Christy, and Jackson, on the Geological Survey material, beg leave to report that they indorse the recommendations contained in that report, and further recommend that—

1. That the Secretary be instructed to prepare a suitable case to hold the material; and,

2. The counsel of this Board be requested to prepare a memorial to be presented to the next Legislature, and the draft of a bill donating all this material and property to the University. [Adopted, February 11, 1890.]

The report of the committee will be found in the appendix of this report.

17. RELATING TO WATER SUPPLY.

Wells.

Regent Bartlett offered the following resolution:

Resolved, That the sum of \$1,000 be and the same is hereby appropriated and placed in the hands of the Chairman of the Committee on Grounds and Buildings and other property, to be used and expended under the direction of said committee in sinking wells, and in other ways exploring for water on the grounds of the University at Berkeley. [Adopted on a call of the ayes and noes, November 12, 1889.]

About fifty wells have been bored varying in depth from fifty to eighty feet. The results are not encouraging. One well will probably yield about eight hundred gallons per day.

Condemnation of Water Sources.

Resolved, That the attorney of the Board be instructed to inquire and report his opinion as to what springs or water sources can be condemned for the benefit of the University under an Act entitled "An Act to provide a supply of water for the University," etc. (Stats. of Cal. 1875-6), and under the general law. [Report of Committee on Water Supply; adopted, December 10, 1889.]

Pollution of Water.

It appears from the maps and papers hereto attached, that the water heretofore taken from Strawberry Creek for the use of the University

has been and is now being polluted by the establishment of cattle corrals on the branches thereof, above the point where it is taken out of the bed of the creek for use, to such an extent as to render the same unfit for and dangerous to be used; that it has been necessary to discontinue the use of said water on account of said pollution, and the flow of said stream is now turned into the said creek and running to waste, while the University is obliged to buy water for domestic use.

In view of these facts your committee respectfully recommends the adoption of the following resolution:

Resolved, First, that the maps, papers, and report of the Committee on Water Supply be transmitted to the counsel of the Board, and that the counsel be and he is hereby instructed, on behalf of the Regents of the University of California, to commence legal proceedings for damages, and to abate or restrain any nuisance caused by fouling the waters of Strawberry Creek, or other waters naturally flowing to and upon the grounds of the University at Berkeley, against any or all parties causing such damage and nuisance.

Second—That said counsel is also authorized to take appropriate action on behalf of the Regents of the University of California, to prevent the Alameda Water Co., or others, from diverting the waters of said creek. [Report of Committee on Water Supply; adopted, December 10, 1889.]

The dairy causing the pollution of the water of Strawberry Creek was removed, and the winter rains washed out most of the filth complained of.

Reservoir.

Regent Hallidie offered the following resolution:

Resolved, That the Committee on Water Supply is hereby instructed to have an examination of the proposed reservoir site on Strawberry Creek made by a competent engineer, and, if in the opinion of the committee and the engineer the proposed site is adapted for such a reservoir, and the same can be safely constructed with a capacity of three million gallons, the committee is hereby authorized to proceed with the construction of the same, at a cost not to exceed \$3,000. [Adopted, December 10, 1889.]

Report of Engineer J. J. Cloud on Sites for Reservoirs.

Regent Phelps, Chairman of Special Committee on Water Supply, submitted the following report of engineer J. J. Cloud:

Hon. T. G. PHELPS:

DEAR SIR: As requested by you, I have made a cursory examination of certain proposed sites for reservoirs for the storage of water, near the State University buildings at Berkeley, from which examinations I deduce the following results: The first site examined by me is situated on the westerly slope of the hill, between one fourth and one half mile easterly from the main buildings of the University, at which point a basin can be made with a capacity of three million gallons. In order to store the above stated quantity, an embankment of seventeen feet in height will have to be constructed, which embankment would contain eight thousand seven hundred and fifty cubic yards of material. To form the basin, the amount of excavating required would be nine thousand three

hundred and seventy-two cubic yards, the amount to be excavated being slightly in excess of the amount to be used in the construction of the embankment.

The material to be obtained for the construction of the embankment is not of a first class quality, still, by using great care and discrimination in the selection of the same, and by using the best of it for the in or water side of the embankment, and by constructing a puddle-pit, say six feet wide throughout the embankment, I have no doubt but that a safe reservoir can be constructed. The elevation of the site under consideration is not sufficient to furnish water for fire purposes for all the buildings at the University, namely, the Mechanic Arts and Library buildings, but for the North and South Halls and the Vitiicultural building the elevation is amply sufficient. The cost of the construction of said reservoir would approximately be as follows:

Embankment puddle-pit, 1,610 cubic yards, at 50 cents	\$805 00
Main portion of embankment, 7,140 cubic yards, at 30 cents	2,142 00
Excavation in excess of quantity for embankment, 622 cubic yards, at 30 cents ..	186 60
Sand box	200 00
Supply pipe from creek to reservoir	1,200 00
Laying pipe, and ditch for same	150 00
Discharge pipe and gate	125 00
Total	\$4,808 60

I have also made surveys of two other points for reservoir purposes, but find that the excavations would be so great, in comparison to the capacity to be obtained, that I scarcely consider them worthy of your attention.

However, as I have obtained the data, you might wish to take it into consideration. I will give the result of the more favorable of the two. The point selected is on the southerly slope of the hill on the northerly side of Strawberry Creek, a short distance below the point where the large well was sunk about two years ago. At this point a basin can be excavated, and inclosed by an embankment of the capacity of five million five hundred and ninety-nine thousand three hundred and fifty-seven gallons, at the following expense:

Excavation—37,350 cubic yards, at 30 cents	\$11,205 00
Puddle-pit—1,650 cubic yards, at 50 cents	825 00
Incidentals	500 00
Total	\$12,530 00

The last place examined would be so expensive that I do not consider it worthy of your attention. The great expense attending the construction of sidehill reservoirs, as you are aware, increases as the steepness of the hill to be excavated becomes greater, so that on steep hillsides a large amount of excavation is required to obtain a small amount of storage capacity. I would respectfully represent to you that there is one site on the southerly side of Strawberry Creek, where a small reservoir could be constructed at a comparatively small expense, which would furnish water at an elevation great enough for fire purposes for all the buildings of the University. This site is on the land belonging to the University, and would take the place of the small reservoir which is now used, but is not on University property.

In consideration of the unfavorable facilities offered for the construction of hillside reservoirs, on account of the conformation of the ground.

the side hill being so steep, I would recommend that if it is possible to secure all of the rights required, that a reservoir be constructed on Strawberry Creek, and a basin formed by the construction of a dam across said creek at the most favorable point to be selected. I have not all the data necessary to give a detailed or complete exhibit of the cost of such a work, but I have made such examinations as will warrant my saying that storage for a given amount of water can be secured at one half the expense in the natural basin of the creek than it can be in hill-side reservoirs. By the construction of a dam at the most advantageous point of said creek, a basin that will store from twelve to fifteen million gallons can be secured at a cost not exceeding from \$10,000 to \$12,000, and in this estimate I include the cost of the following plan: I would construct a small dam up said creek above the point in said creek to which the dam would flood the basin, and take the water out at that point by a flume, and carry the same along the side hill for a certain distance, allowing the water when carrying matter in solution to any great extent to pass through a sand box or filter, and then allowing the water to enter the reservoir. The flume I would construct of such capacity that it would carry all the water that runs in said creek during the largest storms. At such times I would allow the water to run past and enter the natural channel of the creek below the dam. By thus not permitting the water to enter the reservoir at the time when it is carrying a large amount of matter in solution, there would be no danger of the accumulation of any appreciable amount of sediment in the reservoir, and no question as to a wasteway would have to be taken into consideration, as the flume used to carry the storm water could at all times be utilized and no water allowed to enter the reservoir unless so desired.

I do not give any cost for distributing pipes, as a general system will have to be adopted, and since I have been engaged in this work, although there has been considerable time expended owing to the inclemency of the weather, I have not been able to do much instrumental work. As to the pipes necessary to carry out any of the work herein specified, there would be no pressure sufficient to try the strength of any ordinary pipe that would naturally be used in such work. I would also have liked, had the weather permitted, to have made several more surveys and taken levels, as I think I could have furnished you a more satisfactory report.

Yours respectfully,

J. J. CLOUD.

Regent Houghton moved that \$5,000—or so much thereof as may be needed—be appropriated for the construction of a reservoir, and that the committee be authorized to proceed with the work. [Carried, January 18, 1890.]

Services of Engineer.

We present the bill of W. G. Raymond for \$11 50, for surveying and making maps of property on Strawberry Creek. Mr. Raymond is an officer of the University on the salary roll, and it is the opinion of your committee that officers of the University should render any services specially required of them without charge therefor. (Report of the Finance Committee.)

Six dollars and fifty cents allowed for assistants. [January 18, 1890.]

18. REPORTS OF THE SPECIAL COMMITTEE AND THE COMMITTEE ON GROUNDS AND BUILDINGS ON THE ERECTION OF A NEW CHEMICAL LABORATORY.

Plans and Specifications.

Regent Hallidie, Chairman of the Committee on the Erection of a New Chemical Laboratory, presented the plans and specifications for the construction of the Chemical Laboratory, and moved that the whole matter be referred to the Committee on Grounds and Buildings, with instructions to advertise for bids for the construction of the whole building, according to the plans submitted, and to submit a report at the next meeting.

Carried, and the special committee was discharged. [June 25, 1889.]

Bids and Contract.

In conformity with authority from the Board of Regents, the Committee on Grounds and Buildings advertised for proposals for the construction of the new "Chemical Laboratory" at Berkeley, according to plans and specifications prepared by Clinton Day, architect, which had been previously submitted, considered, and adopted by this Board, calling for bids to be received at the office of Clinton Day, architect, 220 Sutter Street, on the twenty-eighth ult., at twelve o'clock noon of said day. At the appointed hour your committee were present, when eleven (11) bids were received, and numbered one to eleven, inclusive, and were opened in numerical order. One bid, that of J. Warren, was refused by the committee, being presented after the expiration of the noon hour. The bid of Robert Smilie, No. 2, was duly opened and considered; no bond or check accompanied the bid; at about twenty-five minutes past twelve o'clock, Mr. Smilie presented a bond, which instrument, upon examination by the committee, was pronounced insufficient and irregular in form, having but one bondsman, and not being filed within the legal time was excluded. Herewith find original list of all bidders, with amounts of each bid filed, showing a difference between the highest and lowest bids of \$26,543.

The lowest bid is that of Robert Smilie, being \$53,435, but for the reasons above stated, your committee declined to consider it.

First—Your committee would therefore recommend the acceptance of the next lowest bid, No. 11, that of R. Mitchell, for the sum of \$56,445, and that the contract be awarded to him.

Second—That the Secretary be instructed to indorse back all checks, and return all bonds to the respective bidders, except that of R. Mitchell, the lowest regular formal bidder.

Third—That the Committee on Grounds and Buildings be herewith authorized to enter into contract with said R. Mitchell for the construction of said building, "The Chemical Laboratory of the University of California," for the sum of \$56,445.

List of Bids.

1. Butler & McGowan (with check).....	\$63,495 00
2. Robert Smilie (with bond).....	53,435 00
3. E. W. Lewis & Co. (with bond).....	79,978 00
4. J. H. Mackay (with bond).....	63,700 00
5. Robert Higgins (with bond).....	70,600 00
6. J. G. & J. N. Day (with bond).....	62,378 00
7. J. J. Conrad (with bond).....	60,500 00
8. M. Carthy (with bond).....	63,920 00
9. Richardson & Gale (with bond).....	63,300 00
10. R. W. Kittnan (with bond).....	58,000 00
11. Robert Mitchell (with bond).....	56,445 00

On motion, adopted, and contract awarded to Robert Mitchell. [September 10, 1889.]

Employment of a Superintendent.

The contractor is now laying the foundation of the new Chemical Laboratory building. We recommend that the Committee on Grounds and Buildings be authorized to employ a Superintendent to supervise the erection of this building. Cost, not to exceed \$150 per month. [Concurred in, November 12, 1889.]

Your Committee on Grounds and Buildings report that they have appointed J. P. Baudin Superintendent of Construction in the erection of the Chemical Laboratory building, in accordance with the resolution of the Board, adopted November 12, 1889. Said appointment to date from November 13, 1889. Salary, \$150 per month, as per order of the Board.

Action of the committee approved. [December 10, 1889.]

Changes in Plans.

Regent Martin, Chairman of the Committee on Grounds and Buildings, reported that certain changes were necessary in the basement of the proposed building. He also submitted a drawing showing the changes needed; also an itemized statement by the architect, Clinton Day, and a bid from the contractor, Robert Mitchell, offering to do the required work for the sum of \$1,695.

Recommendation concurred in and the sum appropriated. [December 10, 1889.]

Regent Hallidie submitted the following statement of the architect as to the cost of the proposed changes in the Chemical Laboratory:

Balance of the amount already allowed by the Board, December 10, 1889.....	\$1,090 00
Strengthening the wall.....	275 00
Two windows in the octagon.....	100 00
Enlarging flues.....	180 00
Lengthening eighteen windows.....	180 00
Total additional expense to be incurred.....	\$1,825 00

Regent Bartlett moved that the proposed changes be approved by the Board, and that \$2,000, including \$1,645 of the appropriation of Dec. 10, 1889, be allowed to cover the cost of alterations to be made by order of the Committee on Grounds and Buildings. [Carried, February 11, 1890.]

The new Chemical Laboratory is rapidly approaching completion, and we have reason to hope that the building may be occupied by the opening of the new academic year. Your committee makes the following recommendation: That copper instead of tin be used in completing

the gutters, valleys, and flashings of the roof. The extra cost will be \$1,290. [Concurred in, May 13, 1890.]

Professor Rising on the Equipment of the New Chemical Laboratory.

The construction of the new Chemical Laboratory, with increased and better accommodations, brings with it the question of equipment. It would be a proud announcement to make to the young men of the State that they can find as good laboratory facilities here as elsewhere. This announcement, I think, can be truthfully made when the building now in construction shall have been suitably furnished. We will then be able to add to our present accommodations laboratory facilities in the following subjects:

I. *Elementary Chemistry.* This opportunity for laboratory practice will be of great advantage to the teachers of the State, and they in turn will be able to successfully introduce and teach this subject in the lower schools. In this way we may in a few years be relieved from this work altogether. I think we can soon offer a summer course to teachers.

II. *Organic Chemistry.* Up to this time the study of this subject has been carried on under great disadvantages. With a special room set apart for this work, and with special apparatus and an assistant in charge, there will be a new interest in the subject. It includes the practical and important industries connected with fermentation, dyeing, sugar manufacture, etc.

III. *Physiological Chemistry.* This subject is of great importance, especially to those who are preparing to study medicine. It will include bacteriological studies, with special application to water analysis, toxicology, food analysis, etc.

IV. *Gas Analysis.* The completion of the laboratory will make it possible, for the first time in the history of this coast, to make a complete analysis of burning gas. It will then be easy to analyze the many gases which are found on this coast. A series of air analyses would be of great interest.

Better facilities will be offered in the following subjects:

- (a) Volumetric analysis.
- (b) Spectrum analysis.
- (c) Exercises with polarized light, including practice in sugar analysis.
- (d) Electrolytic analysis, including practice in the precipitation and separation of metals and electroplating.

A *Chemical Museum*, on a somewhat larger scale, is now made possible. Here will be collected waste products and by-products of chemical manufacture, raw materials, samples illustrating various steps in the process of manufacture. The value of such a collection to students studying chemical manufactures is very great; many persons actually engaged in these manufactures will be interested and profited by such a collection. This museum or collection must be got together through the energy and skill of those in charge of the departments, as it cannot be bought—it must grow.

I have emphasized the importance of equipping the new laboratory with its new departments and museum in such a manner as to get the greatest possible good from them. This involves great responsibility: we need the experience of other institutions and the advice of the best

educators. The suggestion has come to me, again and again, that it would be a great gain to the University if a representation of the Department of Chemistry could visit the best laboratories of this country and Europe and report their experience, advice, and suggestions. We need this assistance, both for the equipment and for the purchase of new apparatus needed in the new departments above described. We want to buy the best apparatus, of the best makers, and at the lowest prices. The estimated cost of new apparatus to furnish the new departments with something to start the museum would be \$5,000.

I would like personally to undertake this work, and would be willing to visit the laboratories connected with the following institutions: Michigan University, Ohio State University (new chemical laboratory in construction, cost \$75,000), Cornell University (new laboratory there also, building cost \$80,000), Johns Hopkins, University of Pennsylvania, Princeton, Columbia, Yale, Harvard, University and Salsbury Laboratory (both in Worcester, Massachusetts, and both new); also the laboratories connected with the following foreign universities: Berlin, Leipsic, Bonn, Heidelberg, Strassburg, Aix-la-Chapelle, Munich, Zurich, Vienna; the important laboratories of France, including Paris, and of England, especially those connected with Oxford and Cambridge, and the Victoria University, and perhaps also Edinburgh and Dublin. I would be willing to bear one half of the expense if the University could bear the other half, which could be limited to, say, \$600. I would do all I could to collect suitable specimens for the museum. I would report to Berkeley frequently so that my suggestions could be acted upon. I would furnish lists of the best apparatus, prices and makers. When purchases are made advantage can be taken of this advice. I would use the time and opportunity to improve myself and to perform the service assigned me to the very best of my ability. Continued ill health compels me to ask for a leave of absence for the remainder of the term. My physician says that I have not recovered my usual health and vigor since my severe illness last fall, and that rest (with travel if possible) is necessary. I feel certain that I can best serve the University by carrying out the programme above outlined. I would return in time for the fall term.

Respectfully submitted.

W. B. RISING.

BERKELEY, March 19, 1890.

Professor Rising Detailed to Examine Laboratories.

Regent Hoitt moved that Prof. W. B. Rising be detailed to visit the several chemical laboratories of America and Europe, with a view to the proper equipment of the new Chemical Laboratory at Berkeley, and that \$600 be appropriated to cover the expenses of his investigations. [Carried, April 8, 1890.]

Furniture and Fittings.

We recommend that furniture and fittings for the new laboratories be made according to plans and specifications herewith submitted, cost not to exceed \$6,000. [Concurred in, May 13, 1890.]

May 27, 1890, the Board appropriated \$6,000 for the purchase of furniture and fittings for the new Chemical Laboratory. Your committee

advertised for proposals, to be opened June 18, 1890, at 12 M. Only one bid was received. R. M. McKillican offered to do the work according to plans and specifications for the sum of \$7,921. The bid was accompanied by a certified check covering 10 per cent of the bid, as required by law.

On motion, ordered that the bid be rejected, and that the committee advertise for bids. [June 24, 1890.]

Purchase of Apparatus, etc.

Professor Rising submits requisitions for glassware, apparatus, and chemicals, amounting to \$1,800. It is necessary to order these goods in advance fifteen or eighteen months.

We recommend that the requisitions be approved, and purchase ordered of said materials, payable out of the budget apportionment for the year in which they shall be received. [Concurred in, January 18, 1890.]

We recommend that a sum, not to exceed \$1,000, be appropriated for the immediate purchase, in Germany, of apparatus, glassware, and fittings, for use in the new Chemical Laboratory; and also, that \$400 be appropriated for the purchase of apparatus and fittings in New York. [Concurred in, May 13, 1890.]

19. REMOVAL OF THE DEPARTMENT OF PHYSICS TO SOUTH HALL.

President Davis reported that the following section of the report of the Finance Committee had been referred to him:

"It will be necessary to place the Department of Physics in South Hall as soon as the Chemical Department can be removed to the Chemical Laboratory, now in process of construction, and it will be desirable to obtain information as to the best methods of fitting up the quarters to be used by the Department in South Hall. Associate Professor F. Slate offers to bear half the expense of an investigation of the improved methods of fitting up Physical Laboratories, now in use in eastern institutions, and to give his entire summer vacation to that work. The cost of such an investigation will be \$500. We recommend that \$250 be appropriated to enable Mr. Slate to make the needed investigations during the coming summer vacation."

He begged leave to report back the recommendation of the Finance Committee, and recommended that it be concurred in. [Concurred in, March 11, 1890.]

20. THE WM. ASHBURNER MEMORIAL CLOCK.

Regent Hallidie presented the bill of Robert McKillican for placing the Ashburner Clock in the tower of the Bacon Art and Library building, amounting to \$566 84, and stated that the bill was \$66 84 in excess of the appropriation. He recommended that the bill be paid. [Concurred in, March 11, 1890.]

Regent Houghton presented the report of the special committee appointed to place the Wm. Ashburner Memorial Clock, as follows:

Your special committee, appointed to place the Wm. Ashburner

Memorial Clock, begs leave to report that the clock is now in place. Mrs. Ashburner met the committee Saturday, March 15, 1890, in the library reading-room, and formally turned over the clock to the Regents of the University. Mrs. Ashburner also placed in the hands of your committee the following papers, which were placed on file in the Secretary's office.

1. The receipt and guarantee of the Seth Thomas Clock Company, as follows:

To the Board of Regents of the University of California:

GENTLEMEN: We hereby certify that all charges due to us for the furnishing and erecting of the Memorial Clock at the University of California have been paid, and we further acknowledge a guarantee to Mrs. Ashburner of the successful working of the clock (accidents excepted) for five years from this date.

SETH THOMAS CLOCK COMPANY,
HENRY MOLINEAUX, Manager.

Dated March 15, 1890.

2. A policy of insurance for \$2,000, running three years, covering the clock and bell, including all appliances and fixtures.

The following inscription is cast in the bell: "Memorial of William Ashburner."

The weight of the movement is one thousand pounds; of the pendulum ball, one hundred and thirty-five pounds; of clock weights (time side), seventy-five pounds; of strike, seven hundred pounds; of bell, one thousand five hundred and sixty-eight pounds; of the hammer, thirty-five pounds. The size of the dial is five feet four inches; the drop for weights is thirty-five feet in length.

Your committee begs leave to submit the following resolutions:

Resolved, That the Board of Regents gratefully accepts the valued gift of Mrs. Ashburner.

Resolved, That the Board of Regents hereby expresses great pleasure in receiving a gift that will perpetuate the remembrance of the distinguished services of the late Regent Wm. Ashburner, on behalf of the University.

Report and resolutions adopted.

Ordered, that a copy of the resolutions be forwarded to Mrs. Ashburner. [April 8, 1890.]

21. INVENTORY OF CONTENTS OF BUILDINGS.

An inventory was made by the Secretary and Professors in 1882. Your committee requests instructions from the Board as to whether a new one shall be made.

Regent Houghton moved that an inventory be taken of the contents of the buildings at Berkeley. [Carried, January 18, 1890.]

22. CONVEYANCE TO H. D. COGSWELL.

Regent Marye presented the following communication from the Trustees of the Cogswell Polytechnical College:

SAN FRANCISCO, September 9, 1889.

To the honorable the Board of Regents of the University of California:

DEAR SIR: As a member of the Board of Trustees of the Cogswell Polytechnical College I received a deed, made by your honorable Board to Dr. H. D. Cogswell, of the property located on the corner of Front and Clark Streets, in this city, it being the same piece of property that Dr. Cogswell had deeded to the Board of Regents under date of May 19, 1879, and redeeded to him by your honorable Board, as per decision of Judge Hunt in case of Cogswell vs. The Regents, Decree No. 15,509, as the same is shown on pages 95-6-7 of the annual report of the Secretary of the Board of Regents for the year ending June 30, 1887.

The Trustees of the Cogswell Polytechnical College were authorized to sell this property to provide funds to furnish the school building erected under the terms of the trust. We effected the sale of the property on condition that the buyer could secure a loan of \$20,000. The abstract of this property and the unrecorded deed was placed in the hands of the attorneys for the Hibernia Bank.

During the time that such attorneys had this matter under consideration, this unrecorded deed was mislaid or lost, and after diligent search cannot be and has not been found.

I hand you with this my affidavit to this effect, a resolution authorizing your President and Secretary to issue a new deed and a deed of the property in question, all of which have been prepared under the supervision of counsel of the Board, Hon. J. B. Mhoon.

The Cogswell Trustees are sadly in need of money to be derived from this sale, inasmuch as they are now paying interest on the amount to the bank. I therefore have the honor to request that your honorable body authorize your President and Secretary to execute and deliver the deed herewith at your earliest convenience.

I am, gentlemen, your obedient servant,

C. B. STONE,
Trustee and Treasurer of Cogswell Polytechnical College.

STATE OF CALIFORNIA,)
City and County of San Francisco.} ss.

C. B. Stone, being first duly sworn, deposes and says that he is one of the Trustees of the Cogswell Polytechnical College; that a certain deed dated the fourteenth day of July, 1887, executed by the Regents of the University of California, a corporation, to Henry D. Cogswell, conveying to said Henry D. Cogswell all that certain lot, piece, or parcel of land situate, lying, and being in the City and County of San Francisco, State of California, and particularly described as follows, to-wit: Commencing at a point on the easterly line of Front Street, distant sixty (60) feet northerly from the northeast corner of the intersection of Front and Jackson Streets; thence northerly along said easterly line of Front Street sixty (60) feet to Clark Street; thence at right angles easterly and along the southerly line of Clark Street eighty-five (85) feet to and including the brick wall, and the land on which stands the wall, which now constitutes the rear or easterly wall of the building erected on the premises hereby conveyed; thence at right angles westerly and parallel with Jackson Street eighty-five (85) feet to the easterly line of Front

Street and point of commencement, was delivered to him as such Trustee of the Cogswell Polytechnical College; that said deed was never placed of record in the office of the County Recorder of the City and County of San Francisco, and since the delivery thereof the same has been lost. And affiant further says that he has made and caused to be made diligent search for said deed, but the same has not been and cannot be found.

C. B. STONE.

Subscribed and sworn to before me this seventh day of September, 1889.

[SEAL.]

JAMES L. KING,
Notary Public.

Resolution of Conveyance by the Board.

WHEREAS, In accordance with the decree of the Superior Court of and for the City and County of San Francisco, in favor of plaintiff and against defendants in the cause, in said Court, and Department No. 5 thereof, entitled, Henry D. Cogswell, plaintiff, vs. The Regents of the University of California, a corporation, by virtue of a resolution adopted therefor, made, executed, and delivered to the said Henry D. Cogswell a good and sufficient deed of conveyance of the real property in the said decree described, which said deed was dated the fourteenth day of July, A. D. 1887, and was duly acknowledged, so that it might be recorded in the office of the County Recorder, of the said City and County of San Francisco; and, whereas, the said deed was never placed of record in the office of the said County Recorder, and since its delivery has been lost, and after diligent search cannot be found; therefore, be it

Resolved, That the President and Secretary of the Board of Regents, in the name and under the corporate seal of the "Regents of the University of California," execute and deliver to H. D. Cogswell a conveyance covering the property heretofore, to wit: May 19, 1879, conveyed by said Cogswell to the Regents of the University of California, in the place of said lost deed, as the same is described in the said deed from said Cogswell to said Regents, in the form to be approved by the attorney of the Board of Regents, substantially as follows, to wit:

This indenture, made the — day of September, in the year of our Lord one thousand eight hundred and eighty-nine, between the Regents of the University of California, a corporation, the party of the first part, and Henry D. Cogswell, the party of the second part, witnesseth: That whereas, a certain deed of indenture, bearing date the fourteenth day of July, A. D. 1887, from the party of the first part to the party of the second part, of the premises hereinafter described, has been lost, and after diligent search cannot be found; now, therefore, the said party of the first part, for and in consideration of the sum of one dollar, coin of the United States of America, to it in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged, and pursuant to a decree of the Superior Court of San Francisco, Department Five, entered in the case of H. D. Cogswell vs. The Regents of the University of California, on the eighth day of February, 1887, has remised, released, forever quitclaimed, and by these presents does remise, release, and forever quitclaim unto the said party of the second part, and to his heirs

and assigns, all that certain lot, piece, or parcel of land situate, lying, and being in the City and County of San Francisco, State of California, and particularly described as follows, to wit: Commencing at a point on the easterly line of Front Street, distant sixty (60) feet northerly from the northeast corner of the intersection of Front and Jackson Streets; thence northerly along said easterly line of Front Street sixty (60) feet to Clark Street; thence at right angles easterly and along the southerly line of Clark Street eighty-five (85) feet to and including the brick wall, and the land on which stands the wall, which now constitutes the rear or easterly wall of the building erected on the premises hereby conveyed; thence at right angles westerly and parallel with Jackson Street eighty-five (85) feet to the easterly line of Front Street and point of commencing; together with all and singular the tenements, hereditaments, and appurtenances thereunto belonging or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues, and profits thereof, and also all the estate, right, title, interest, property, possession, claim, and demand whatsoever, as well in law as in equity, of the said party of the first part, of, in, or to the said premises, and every part and parcel thereof, with the appurtenances. To have and to hold, all and singular, the said premises, together with the appurtenances, unto the said party of the second part, and to his heirs and assigns forever.

In witness whereof, the said party of the first part hath, on the date first above written, caused its corporate name to be hereunto subscribed by its President, and its corporate seal to be hereon affixed by its Secretary, in accordance with a resolution regularly adopted, this — day of September, 1889.

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA.

On motion, the resolution was adopted, and a deed ordered as requested. [September 10, 1889.]

23. RESIGNATIONS.

Regent Phelps presented the resignation of Charles B. Hill as Secretary, Librarian, and Assistant Astronomer of the Lick Observatory, to take effect September 15, 1889. [Accepted, September 10, 1889.]

Resignation of President Davis.

Your committee on matters relating to the Presidency of the University herewith submits the letter of President Davis resigning his office, and in full appreciation of the sentiments expressed in that letter recommends the acceptance of Mr. Davis' resignation, to take effect from the fifteenth of September, 1890:

BERKELEY, April 4, 1890.

To the Board of Regents:

GENTLEMEN: I beg to place in your hands my resignation of the office of President. When I accepted the position I agreed to make my residence in Berkeley. Circumstances beyond my control have made it impossible for me to carry out my promise and I tender my resignation to take effect at as early a day as will be convenient to you.

In all other respects except moving to Berkeley, I believe I have performed the trust you laid upon me, with fidelity. The work has been

congenial to me and I have given it all my time and thought, to the entire exclusion of my private affairs, which have been intrusted to the sole management of other persons. I hope and believe that the University has prospered under my administration, and now, though my official connection with it is dissolved, it will always have my warmest wishes for its continued welfare.

I remain, gentlemen, with great respect, yours very truly,

HORACE DAVIS.

Recommendation of committee concurred in. [May 13, 1890.]

24. RELATING TO LEAVE OF ABSENCE.

President Davis reported that he had given a leave of absence to Professor Hilgard on account of the death of his son. [Approved, November 12, 1889.]

Regent Rodgers presented the following report:

Your special committee, to which was referred the application of Prof. Bernard Moses, dated January 7, 1890, for leave of absence, recommend that under all the circumstances, the application for leave of absence, with pay, for the year beginning September 18, 1890, be granted, with the understanding, however, that the action in this matter shall not hereafter be deemed a precedent. [Approved, March 11, 1890.]

Your committee recommends that Associate Professor C. B. Bradley be granted a leave of absence for one year, without pay, namely, from September 15, 1890, to September 15, 1891. [Report of Committee on Internal Administration; concurred in, April 8, 1890.]

Some of the officers have already finished their work for the year and desire to leave Berkeley at once, some to travel and some to study. Your committee recommends that such as be recommended by the President be allowed to leave without loss of salary. [Report of the Finance Committee; concurred in, June 10, 1890.]

25. APPOINTMENT OF PROFESSORS.

President Davis submitted the following:

Resolved, That Professor Charles M. Gayley be appointed Professor of the English Language and Literature in place of Albert S. Cook, resigned, at a salary of \$3,000 per annum, said appointment to begin September 16, 1889.

On motion, adopted. [July 2, 1889.]

Regent Delmas moved that S. B. Christy, Albin Putzker, and A. W. Jackson be restored to the Professorships held by them when they were made Associate Professors, without change of salary. [Carried, January 18, 1890.]

Resolved, That we respectfully request the Secretary of War to detail First Lieutenant Benjamin H. Randolph, of the Third Artillery, U. S. Army, to succeed Lieutenant Harrison as Professor of Military Science and Tactics in the University of California. [Report of Special Committee on Selection of a Professor of Military Science and Tactics; adopted, May 13, 1890.]

Regent Marye offered the following:

Resolved, That the duties of Professor of Military Science and Tactics in the University have been performed by First Lieutenant George F. E. Harrison, Second Artillery, with great fidelity and efficiency, and in a manner highly satisfactory to the Faculties and the Board of Regents. [Adopted, May 13, 1890.]

Titles of Professors in the Dental Department.

President Davis, to whom was referred the changes in the titles of the Professors of the Dental College, with power to approve, reported that he had approved the said changes, as recommended in the following:

SAN FRANCISCO, January 13, 1890.

To the honorable Board of Regents of the University of California:

GENTLEMEN: I beg respectfully to present the following abstracts from the minutes of the Dental Faculty, viz.:

December 13, 1881.—The amendments to the by-laws, introduced by the Secretary, November 7, 1881, "That the words, 'Dental Art and Mechanism,' of Section 1, be changed to 'Mechanical Dentistry,' was adopted November 21, 1889. Professor Dunbar moved that the title of Professor Goddard's chair be changed to 'Orthodontia and Dental Metallurgy,' and that the subject of 'Mechanical Dentistry' be left with a Lecturer, to be appointed for that purpose. Carried." The same are presented in affirmation of Professor Goddard in his petition of this date.

Very respectfully,

L. L. DUNBAR,
Dean.

February 11, 1890.

26. APPOINTMENT OF ASSOCIATE PROFESSOR.

We recommend that Instructor Thomas R. Bacon be made Assistant Professor of European History, with maximum salary of said position.

The recommendation of the committee was amended to read as follows: "That Thomas R. Bacon be appointed Associate Professor of European History, at a salary of two hundred (\$200) dollars per month, said appointment to date from his resignation of his pastorate of the First Congregational Church of Berkeley, and his acceptance of the position herein offered." [Report of the Finance Committee; adopted, December 10, 1890.]

27. APPOINTMENT OF ASSISTANT PROFESSORS.

Regent Rodgers stated that E. L. Greene had been appointed Assistant Professor of Botany; that said appointment was to continue for a definite period of time; that the said period had not expired when he was made Lecturer on Botany; that such appointment as Lecturer was a reduction in rank, and in violation of a contract of the Board with Mr. Greene. He therefore moved that his appointment as Lecturer be

corrected, and that he be made Assistant Professor of Botany, with his present salary. [Carried, January 18, 1890.]

President Davis submitted the following:

Resolved, That E. L. Greene be appointed Assistant Professor of Botany, at the rate of \$1,500 per annum during his term of service. [Adopted, May 13, 1890.]

Resolved, That Alexander F. Lange be appointed Assistant Professor of the English Language and Literature, for a period beginning September 15, 1890, and ending June 30, 1891, with a salary of — per month, or \$1,800 for the term of appointment. [Report of Committee on Internal Administration; adopted, May 13, 1890.]

28. APPOINTMENT OF DIRECTOR OF PHYSICAL CULTURE.

Resolved, That F. H. Payne, M.D., be appointed Director of Physical Culture, for one year from July 1, 1890, to June 30, 1891, with salary at the rate of \$1,000 per annum. [Report of Committee on Internal Administration; adopted, May 27, 1890.]

29. APPOINTMENT OF LECTURERS.

Resolved, That Adolph P. Miller be and he is hereby appointed Lecturer on Political Economy, for a period beginning September 15, 1890, and ending June 30, 1891, with a salary of — per month, or \$1,800 for the term of appointment. [Report of Committee on Internal Administration; adopted, May 13, 1890.]

Resolved, That E. J. Wickson be appointed Lecturer on Practical Agriculture, for one year from July 1, 1890, to June 30, 1891, with salary at the rate of \$2,400 per annum. [Report of Committee on Internal Administration; adopted, May 27, 1890.]

30. REORGANIZATION OF THE STAFF OF THE DEPARTMENT OF CHEMISTRY.

With reference to the Chemical Department, we think that in view of the removal into the new Chemical Laboratory, the organization of the department ought to be somewhat changed, and we therefore recommend that it be organized as follows:

One Professor at a salary of	\$3,000 a year.
One Assistant Professor at a salary of	1,800 a year.
One Instructor at a salary of	1,000 a year.
One First Assistant at a salary of	720 a year.
One Second Assistant at a salary of	500 a year.

And we recommend that those positions be filled as follows: That Professor Rising be continued Professor as before; that Edmund O'Neill be made Assistant Professor; that J. H. Gray, Jr., be made Instructor; that A. Sommer be made First Assistant, and that V. K. Chestnut be made Second Assistant.

And we recommend that all the foregoing persons be required to give their whole time to the service of the University, and if Mr. Sommer is unable to comply with this requirement and is therefore unwilling to accept the position of First Assistant, we suggest that the salary of that position be fixed at \$600 per annum, instead of \$720 as recommended

above. [Report of Committee on Internal Administration; concurred in, June 24, 1890.]

31. APPOINTMENT OF INSTRUCTORS.

President Davis nominated George M. Richardson as Instructor in Latin, to act from September 19, 1889, to July 1, 1890.

On motion, adopted. [July 2, 1889.]

President Davis submitted the following resolution:

Resolved, That Dr. G. M. Richardson's term of employment as Instructor in Latin include the period from September twelfth to September nineteenth, inclusive, and that he be paid therefor. [Adopted, November 12, 1890.]

Regent Marye moved that W. W. Deamer be elected Instructor in Latin.

Regent Rodgers moved that G. M. Richardson be elected Instructor in Latin.

On roll call, Mr. Richardson was declared elected. [May 27, 1890.]

Resolved, That Dr. Frank G. Hubbard be appointed an additional Instructor in English for one year, from September 15, 1889, to September 14, 1890, at a salary of \$1,500 per annum. [Report of special committee to consider the necessity of providing further instruction in English and the Modern Languages; adopted, September 10, 1889.]

President Davis submitted the following:

Resolved, That during the illness of Professor Bunnell, President Davis be authorized to employ Prof. R. F. Pennell, at a salary of one hundred and fifty. (\$150) dollars per month to take charge of the Greek Department, said appointment to begin October 7, 1889. [Adopted, November 12, 1889.]

President Davis submitted the following:

Resolved, That during the illness of Associate Professor Clarke, President Davis be authorized to employ Dr. Carlo Veneziani as Instructor in the Mathematical Department, at a salary of one hundred and twenty-five (\$125) dollars per month, from Tuesday, October 1, 1889. [Adopted, November 12, 1889.]

President Davis submitted the following:

Resolved, That the following appointments be made on the teaching staff at Berkeley:

The following Instructors for one year, from July 1, 1890 to June 30, 1891: Hermann Kower, in Instrumental Drawing, at the rate of \$1,700 per annum; Edmund O'Neill, in Chemistry, at the rate of \$1,700 per annum; W. D. Armes, in English, at the rate of \$1,500 per annum; J. H. Senger, in German and Greek, at the rate of \$—— per annum; Franklin Booth, in Mining and Metallurgy, at the rate of \$1,200 per annum; also, Frank G. Hubbard, in English, from September 14, 1890, to June 30, 1891, for the sum of \$1,500. [Appointments made, May 13, 1890.]

Department of Mathematics.

When Professor Clarke was made Assistant Professor in 1885, there were two hundred and fifty students in the College. The Register just issued shows four hundred and one. Thus, the number of students has increased 80 per cent without any corresponding increase in the teaching

force in mathematics. The time has now come when such an increase is necessary, and it can be accomplished without material increase of expense, or weakening of the efficiency of the instruction, by abolishing the vacant Associate Professorship and substituting for it two Instructorships. The salary of the Associate Professor has been \$2,400; the compensation of two Instructors, at \$1,500 each, will be \$3,000; an annual increase of \$600. This change is recommended by President Davis and Professor Stringham, and we hand in with this report a detailed statement by Professor Stringham, of the work of the department for the past ten years, and of the proposed work for the coming year, showing the number of courses of study, the hours required for each, and the number of students engaged in each. It will be seen from this statement that sixty hours of class-room work is required in the Mathematical Department in the coming year, which will require four teachers.

We therefore recommend the following resolution: "That the Second Associate Professorship of Mathematics be hereby abolished, and two Instructorships be established in its place, each at a salary of \$1,500 per annum." [Report of Committee on Internal Administration; report and resolution adopted, May 27, 1890.]

President Davis submitted the following:

Resolved, That instead of two Instructors in Mathematics at \$1,500 per annum each, the Board will allow the \$3,000 devoted to their salaries to be divided into two unequal parts, if, in the opinion of the President and Professor Stringham, such course should be for the benefit of the University. [Adopted, June 10, 1890.]

That Mellen W. Haskell be appointed Assistant Professor of Mathematics at a salary of \$1,800 a year, for the term of one year, commencing July 1, 1890, with the understanding that if his services are satisfactory, he will be reëmployed for another year at the same salary. [Report of Committee on Internal Administration; concurred in, June 24, 1890.]

That Armin O. Leuschner be appointed Instructor in Mathematics at a salary of \$1,200 a year, for the term of one year, commencing July 1, 1890. [Report of Committee on Internal Administration; concurred in, June 24, 1890.]

32. RECORDER'S OFFICE.

Finlay Cook to be Recorder, appointment to date from July 1, 1889, and to continue until July 1, 1890. [Report of special committee to fill vacancies; concurred in, July 2, 1889.]

James Sutton to be Recorder's Clerk, to date from July 1, 1889, to July 1, 1890. [Report of special committee to fill vacancies; concurred in, July 2, 1889.]

Resolved, That Finlay Cook be appointed Recorder, from July 1, 1890, to June 30, 1891, at a salary of \$900 for the year.

Resolved, That James Sutton be appointed Recorder's Clerk, from July 1, 1890, to June 30, 1891, at a salary of \$600 for the year. [Report of Committee on Internal Administration; resolutions adopted, June 24, 1890.]

33. ASSISTANTS.

John H. Gray, Jr., to be Department Assistant in Chemistry, vice Ritter, resigned, to date from September 19, 1889, to July 1, 1890. [Report of special committee; concurred in, July 2, 1890.]

Victor K. Chestnut and Samuel S. Peck, to be Student Assistants in the Chemical Laboratory, to date from September 19, 1889, and to continue until July 1, 1890. [Report of special committee; concurred in, July 2, 1889.]

Meyer E. Jaffa, to be Assistant in Agricultural Laboratory, instead of First Assistant in Viticultural Laboratory. [Report of special committee; concurred in, July 2, 1889.]

That Franklin Booth be appointed Department Assistant in Mining and Metallurgy, to date from July 1, 1889, to July 1, 1890.

On motion, the recommendation was amended so as to read: "That Franklin Booth be appointed Instructor in Mining and Metallurgy, to date from July 1, 1889, to July 1, 1890;" and then the recommendation, as amended, was concurred in. [Report of special committee, July 2, 1889.]

President Davis recommended that John C. Merriam be appointed Student Assistant in the Department of Mineralogy, to date from September 19, 1889, and to continue until July 1, 1890. [Concurred in, July 2, 1889.]

That A. F. Mack be appointed Department Assistant in the College of Mechanics, to date from September 19, 1889, and to continue until July 1, 1890. [Concurred in, July 2, 1889.]

In the matter of the petition of W. J. Raymond and E. R. Drew, for a change in date of their appointment, namely, from September 19, 1889, to July 1, 1889, referred to this committee at the meeting of the Board held September 10, 1889, we recommend that the appointment of said petitioners be made, to date from July 1, 1889, and to continue until July 1, 1890, and that each be paid \$75 per month for the period of the appointment. [Report of the Finance Committee; concurred in, November 12, 1889.]

Report of Committee on Internal Administration.

Resolved, That the following appointments be made:

E. R. Drew, Assistant in Physics, for one year, from July 1, 1890, to June 30, 1891, at the rate of \$1,200 per annum.

W. J. Raymond, Assistant in Physics, for one year, from July 1, 1890, to June 30, 1891, at the rate of \$1,200 per annum.

E. Rixford, Assistant in Mechanics, from September 18, 1890, to June 30, 1891, at the rate of \$50 per month.

J. D. Layman, Assistant Librarian, for one year, from July 1, 1890, to June 30, 1891, at the rate of \$1,200 per annum.

Walter Magee, Assistant in Physical Culture, for one year, from July 1, 1890, to June 30, 1891, at the rate of \$1,500 per annum.

M. E. Jaffa, Assistant in Agricultural Laboratory, for one year, from July 1, 1890, to June 30, 1891, at the rate of \$1,500 per annum.

Louis Paparelli, First Assistant in Viticultural Laboratory, for one year, from July 1, 1890, to June 30, 1891, at the rate of \$1,500 per annum.

George E. Colby, Second Assistant in Viticultural Laboratory, for one year, from July 1, 1890, to June 30, 1891, at the rate of \$1,200 per annum.

K. McLennan, Gardener to the College of Agriculture, for one year, from July 1, 1890, to June 30, 1891, at the rate of \$840 per annum.

W. G. Klee, Inspector of Stations, for one year, from July 1, 1890, to June 30, 1891, at the rate of \$1,500 per annum.

Joseph W. Flynn, Printer, for one year, from July 1, 1890, to June 30, 1891, at the rate of \$720 per annum.

[Adopted, May 27, 1890.]

Resolved, That John C. Merriam be appointed Student Assistant in Minerology, from September 15, 1890, to June 30, 1891, at a salary of \$20 per month. [Report of the Committee on Internal Administration; adopted, June 24, 1890.]

President Davis submitted the following:

Resolved, That J. A. Sladky be appointed Superintendent of Machine Shops, from July 1, 1890, to June 30, 1891, with salary at the rate of \$1,800 per annum. [Adopted, May 13, 1890.]

Inspector.

That W. G. Klee be appointed Inspector of Stations, from July 1, 1889, to July 1, 1890. [Report of special committee appointed to fill vacancies; concurred in, July 2, 1889.]

Assistant in Department of Civil Engineering.

We recommend that the petition of Professor Soulé be granted, and that the Department of Civil Engineering be accordingly allowed a student assistant for eight months of the academic year, with pay of \$20 per month when employed. [Report of Committee on Internal Administration; concurred in, May 27, 1890.]

34. UNIVERSITY PUBLICATIONS.

We recommend that one thousand five hundred copies of Professor Gayley's Bibliography on *Æsthetics* be printed by the State Printer. [Report of Committee on Library and Museum; concurred in, November 12, 1889.]

35. ENTRANCE EXAMINATIONS.

President Davis offered the following:

Resolved, That the Academic Council be authorized to hold entrance examinations at Visalia regularly each year hereafter. [Adopted, January 18, 1890.]

36. RESIDENCE AT BERKELEY.

With reference to the residence at Berkeley of the President, and of persons giving instruction in the University, your committee is of the opinion that the President and all Professors, Associate Professors, and Assistant Professors should reside at the seat of the University at Berkeley, and your committee would recommend the adoption by the Board of the following regulation, to apply to all persons hereafter appointed to any of those offices, namely:

The following officers shall reside at the seat of the University at Berkeley: The President, Professors, Associate Professors, Assistant Professors giving instruction exclusively at Berkeley, and the Secretary of the Board of Regents.

The restrictions upon the residence of the officers above mentioned may be removed by the Board of Regents in individual cases for cause. Your committee is of the opinion that this regulation should apply to the present incumbent of the office of President, because he was appointed with the distinct understanding that he was to reside at Berkeley; but he has adduced reasons which to your committee seem sufficient, why he has not and does not now reside at Berkeley. [Report of Committee on Internal Administration; adopted, April 8, 1890.]

37. DEGREES CONFERRED.

College of Pharmacy.

President Davis submitted the following report from the Dean of the College of Pharmacy:

President HORACE DAVIS:

DEAR SIR: In accordance with a vote of the Board of Trustees of the California College of Pharmacy, passed October 4, 1889, the following named students, who have satisfactorily completed the required course of study, and passed the necessary examinations, are hereby recommended to the honorable Board of Regents for the degree of "Graduate in Pharmacy."

Henry M. Beck	Ninth and Mission Streets, San Francisco.
Frank W. Bilger	951 Broadway, Oakland.
Charles P. Bowen	124 Ellis Street, San Francisco.
Levitt H. Cox	735 Turk Street, San Francisco.
Lincoln Fitzell	Eureka, California.
Allie S. Fox	261 Twelfth Street, Oakland.
Henry G. Gerdes	500 Guerrero Street, San Francisco.
Benj. F. Hall	401 Sixth Street, San Francisco.
Frank B. Herder	Twelfth and Broadway, Oakland.
Geo. J. Harvey	34 First Street, San Francisco.
Henry F. Morgan	124 Ellis Street, San Francisco.
Ambrose E. O'Neill	610 Seventh Street, San Francisco.
Joseph Van Worthen	603 Montgomery Street, San Francisco.
Otto A. Weihe	119 Morris Avenue, San Francisco.
Allen C. Wagener	San José, California.
Lawrence E. Williams	1101 Broadway, Oakland.
Julien E. Waller	1406 Van Ness Avenue, San Francisco.
Adolph W. Borchers	Sixth and Harrison Streets, San Francisco.

The degree of Graduate in Pharmacy was conferred upon the foregoing candidates in accordance with the recommendations of the Faculty of the College of Pharmacy. [November 12, 1889.]

College of Dentistry.

President HORACE DAVIS:

DEAR SIR: In accordance with a vote of the Faculty of the College of Dentistry, passed November 6, 1889, the following named students, who have satisfactorily completed the required course of study, and passed the necessary examinations, are hereby recommended to the honorable Board of Regents for the degree of Doctor of Dental Surgery:

Milton Ross Gambitz	San Francisco, Cal.
Benjamin Mitchell Gunzburger	San Francisco, Cal.
William Alexander Meyer	San Francisco, Cal.
Warren Guice Mobley	North Bloomfield, Cal.
Dorr Nash	Nicolaus, Cal.

Joseph Pfister	Pinole, Cal.
Andrew John Powell	Haywards, Cal.
Edward William Pratt	San Francisco, Cal.
Frederick Courtland Sutliff	Sacramento, Cal.
Arthur Henry Wallace	Stockton, Cal.

L. L. DUNBAR,
Dean.

Degrees conferred as recommended. [November 12, 1889.]

College of Medicine.

President HORACE DAVIS:

DEAR SIR: In accordance with a vote of the Faculty of the Medical Department, passed November 7, 1889, the following named students, who have satisfactorily completed the required course of study, and passed the necessary examinations, are hereby recommended to the honorable Board of Regents for the degree of Doctor of Medicine:

Robert E. Bunker	San Francisco.
Francesca I. Foreman	San Francisco.
Christopher C. Gleaves	San Francisco.
William H. Haskin	San Francisco.
Edward R. Holmes	San Francisco.
Ottiwell W. Jones	San Francisco.
Masayasu Kawakami	San Francisco.
Frances R. Marx	San Francisco.
Squier R. Mather	San Francisco.
Oscar J. Mayer	San Francisco.
Aloysuis P. O'Brien	San Francisco.
Joseph A. Oliver	San Francisco.
Samuel P. Tuggle	San Francisco.
Mark S. Wade	San Francisco.
Gustave C. Zeyn	San Francisco.

R. A. McLEAN,
Dean.

Degrees conferred as recommended. [November 12, 1889.]

The Hastings College of the Law.

President Davis submitted the following:

UNIVERSITY OF CALIFORNIA,)
HASTINGS COLLEGE OF THE LAW.)

President DAVIS:

DEAR SIR: In accordance with a vote of the Board of Directors of the Hastings College of the Law, passed June 6, 1890, the following named students, who have satisfactorily completed the required course of study, and passed the necessary examinations, are hereby recommended to the honorable Board of Regents for the degree of Bachelor of Laws:

1. Walter John Bartnett, A.B.	San Francisco.
2. William Henry Carlin	Wheatland.
3. Joseph Louis Dumontier, A.B.	San Francisco.
4. Warren Cranston Gregory, A.B.	Pacheco.
5. Samuel Haskins, A.M.	San Francisco.
6. Thomas Eastman Haven, A.B.	San Francisco.
7. Arthur Inkersley, A.B.	San Francisco.
8. James Clarence McKinstry, A.B.	San Francisco.
9. Jacob Samuels, A.B.	San Francisco.
10. William Wilson Sanderson, Ph.B.	San Francisco.

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| 11. Arthur Kenningford Sheats | San Francisco. |
| 12. Harry Heinzelman Timken | San Diego. |
| 13. Sidney McMechen Van Wyck, Jr. | San Francisco. |

[Attest:]

EDWARD J. RYAN,
Registrar.

On motion, the degree of Bachelor of Laws was conferred on each of the candidates named in the foregoing list. [June 10, 1890.]

Colleges at Berkeley.

Regent Bartlett, on behalf of the special committee to which was referred the following applications for degrees, reported in favor of granting the degrees, as recommended by the Faculties at Berkeley:

College of Letters—Degree of Ph.B.

George Russell Lukens Oakland, Cal.

College of Mining—Degree of B.S.

John Cushing Dornin Fulton, Cal.

[Conferred, January 18, 1890.]

President Davis presented a recommendation of the Faculty, as follows:

President HORACE DAVIS:

DEAR SIR: In accordance with a vote of the Faculty of the College of Chemistry, passed February 19, 1890, the following student, who has satisfactorily completed the required course of study, and passed the necessary examinations, is hereby recommended to the honorable Board of Regents for the degree of Bachelor of Science:

Frederick William Abourn Wright Berkeley.

IRVING STRINGHAM,
Dean.

On motion, the degree of Bachelor of Science was conferred as recommended. [March 11, 1890.]

President Davis submitted the reports of the several Faculties recommending that degrees be conferred on the following graduates of the University at Berkeley, as follows:

1. By the Faculty of the College of Letters, recommending that the degree of Bachelor of Arts be conferred upon the following candidates:

Richard Frank Dean	San Francisco.
Andrew Mitchell Henderson	Sacramento.
Ruth Wales Hobson	Berkeley.
Mollie Morton	Sacramento.
John Dunning Rideout	San Francisco.
Edward Heald Stearns	Oakland.
Arthur Irwin Street	Berkeley.

On motion, the degree of Bachelor of Arts was conferred as recommended.

2. By the Faculty of the College of Letters, recommending that the degree of Bachelor of Letters be conferred upon the following candidates:

William Henry Davis	Marysville.
Fanny Matilda Henderson	Oakland.
Leslie Randall Hewitt	Los Angeles.
Edward Coke Hill	Seattle, Washington.
Fred. William McNear	Oakland.
Ruth Merrill	Sacramento.
William Sidney Smith	Stockton.

On motion, the degree of Bachelor of Letters was conferred as recommended.

3. By the Faculty of the College of Letters, recommending that the degree of Bachelor of Philosophy be conferred upon the following candidates:

Henry French Bailey	Santa Cruz.
James Hickcox Carey	San Francisco.
Josephine Estelle Chapman	Alameda.
Rose Mary Dobbins	Berkeley.
Ernest Norton Henderson	Sutter Creek.
Norman Russell Lang	Oakland.
Lewis McKisick	San Francisco.
Orrin Kip McMurray	Lorin.
Anna McNeill	San Francisco.
Ada Hope Ramsdell	Alameda.
Frank Elmer Rich	San José.
William Lafayette Rodgers	Watsonville.
Leon Samuels	San Francisco.
Guy Heancastle Stokes	Berkeley.
Donzel Stoney	San Francisco.
Chas. Edward Townsend	Oakland.
Frederick Leslie Wharff	San Francisco.
Harry Lord Wilson	San Francisco.

On motion, the degree of Bachelor of Philosophy was conferred as recommended.

4. By the Faculty of the College of Mechanics, recommending that the degree of Bachelor of Science be conferred on the following candidates:

David Clarence Demarest	Angels Camp.
Hugh Howell	Oakland.
Cornelius B. Lakanan	Grass Valley.
Arthur Fisher Mack	Westminster.

On motion, the degree of Bachelor of Science was conferred as recommended.

5. By the Faculty of the College of Civil Engineering, recommending that the degree of Bachelor of Science be conferred upon the following candidates:

Daniel Sawyer Halladay	Santa Ana.
Arthur Incell	San Francisco.
Jabez Arthur Jenkins	Grass Valley.
Henry Gridley Parker	Santa Ana.
Archie Burton Pierce	San Francisco.

On motion, the degree of Bachelor of Science was conferred as recommended.

6. By the Faculty of the College of Chemistry, recommending that the degree of Bachelor of Science be conferred on the following candidates:

Samuel Stodole Peck	San Francisco.
Wallace Irving Terry	Sacramento.
Victor King Chestnut	Oakland.

On motion, the degree of Bachelor of Science was conferred as recommended.

7. By the Faculty of the College of Agriculture, recommending that the degree of Bachelor of Science be conferred on the following candidate:

Hubert Paul Dyer.....Oakland.

On motion, the degree of Bachelor of Science was conferred as recommended. [June 24, 1890.]

38. UNIVERSITY MEDAL.

President Davis submitted the recommendation of the Academic Council, that the University Medal for 1890 be awarded to Orrin Kip McMurray.

On motion, concurred in. [June 24, 1890.]

39. DUPLICATE DIPLOMA.

Mr. Kelsey's diploma was destroyed by fire, as stated in the following sworn statement, and the Board of Trustees request the Board of Regents to issue a duplicate diploma.

E. W. RUNYON,
Secretary Board of Trustees.

To the honorable Board of Regents of the University of California:

This is to certify that on the fourth day of July, 1889, in the City of Ellensburg, County of Kittitas, Territory of Washington, the diploma granted to Harry D. Kelsey, in 1888, by your honorable body, was destroyed by fire on the aforesaid date, in the general conflagration of the aforesaid city.

HARRY D. KELSEY.

Subscribed and sworn to before me, a Notary Public in and for the County of San Mateo, State of California, the fourteenth day of September, 1889.

GEO. C. ROSS,
Notary Public.

Correct:

E. W. RUNYON,
Dean Department of Pharmacy, University of California.

Thereupon, the Board ordered a duplicate diploma to be issued to said Harry D. Kelsey. [November 12, 1889.]

40. AGRICULTURAL EXPERIMENT STATIONS.

Clerk to the Director.

That the Committee on Experiment Stations be authorized to make the appointment to the position of Clerk to the Director of Agricultural Experiment Stations; said appointment to continue until the next meeting of the Board. [Report of special committee to fill vacancies; concurred in, July 2, 1889.]

L. W. Maslin was appointed, and resigned January 1, 1890.

Regent Martin presented the following communication from Director Hilgard:

BERKELEY, December 18, 1889.

Hon. J. WEST MARTIN, Chairman Committee on Experiment Stations:

DEAR SIR: Mr. L. W. Maslin, the present incumbent of the clerkship in this department, having tendered his resignation in consequence of his appointment to the superintendency of the vineyard at the State Home for the Feeble-Minded, I respectfully nominate as his successor Mr. E. F. Goodyear (a student of the University, now on leave of absence on account of financial disability, but having a first rate class record for three terms), and request your approval of his appointment, to take effect January 1, 1890.

It should be understood, and I have so informed Mr. Goodyear in advance, that the clerk cannot claim the regular privileges of vacation. His absence necessarily throws all his duties on the Director, and in the temporary absence of the latter it is necessary that the regular business correspondence, account keeping, etc., should be attended to as closely as ever. I suggest that it would be well to put this regulation in official form in making the new appointment.

Respectfully,

E. W. HILGARD,
Director.

The appointment of E. F. Goodyear as Clerk to the Director, at a salary already ordered by the Board, namely, \$50 per month, was then made with the conditions stated in Director Hilgard's letter. [January 18, 1890.]

Budget of Agricultural Experiment Station.

Regent Martin, from the special committee on Agricultural Experiment Stations, submitted the following:

BERKELEY, February 10, 1890.

Hon. J. WEST MARTIN, Chairman Committee on Experiment Stations:

DEAR SIR: You are aware that the budget for the current fiscal year reserved the sum of \$1,980 towards the equipment of an Experiment Station, to be established in Southern California, of which there seemed to be a definite prospect under offers made by the Pomona Land and Water Company, in conjunction with Mr. Richard Gird. The consummation, as I understand, still depends simply upon the realization by the latter of certain business enterprises, which has been delayed by the depression of values in that section. According to my latest information, it is probable that this *will* occur within this month. But the season is advancing very fast, and it is certain that not much could, in any case, be done toward any actual work before next autumn. It therefore appears to me that in order to avoid the necessity of precipitate expenditure of the reserved sum—already reduced to \$1,542 14 by allowance made for expense of water supply for the Amador Station—at the end of the fiscal year, I propose to begin to use it at once for the making of such needed improvements at the stations already in active progress as might otherwise have been made more gradually, but would

in any case have had to be made within the next two years. Then, should the matter of the Southern Station come to a point, we can begin improvements there after June thirtieth of the present year, in time to be ready for active operations next season.

If this disposition of the matter meets the approval of yourself and the Finance Committee, I propose to make at once a number of requisitions looking to the proper expenditures of the above sum, and chargeable to that particular item of the budget.

Very respectfully,

E. W. HILGARD,
Director of Experiment Stations.

Regent Houghton moved that the Professor be allowed to use the unexpended balance of \$1,542 14 on the Experiment Stations now equipped. [Carried, February 11, 1890.]

Insurance.

We report that a policy covering the value of \$1,800 on the Experiment Station building, at Paso Robles, has expired, and request instructions as to renewal. [Report of the Finance Committee; renewal ordered, November 12, 1889.]

We recommend that the buildings of the Agricultural Experiment Stations be insured, the premiums to be paid from the United States Experiment Station Fund of \$15,000. [Report of the Finance Committee; concurred in, March 11, 1890.]

Certificate of Deposit of Committee of Tulare Grange.

The committee of Tulare Grange, appointed to collect money and put up buildings for above station, deposited by mistake \$40 in Tulare Bank to the credit of the Regents.

We recommend the adoption of the following:

Resolved, That the Secretary is instructed to indorse said certificate of deposit, payable to B. F. Moore, W. F. Stuart, E. S. Pinney, and J. H. Bolche, committee of Tulare Grange, with the understanding that said amount is to be expended only on buildings belonging to the San Joaquin Valley U. S. Experiment Station at Tulare. [Report of the Finance Committee; adopted, March 11, 1890.]

Morrill Senate Bill No. 3,256 Indorsed by the Regents.

Regent Martin presented the following:

WHEREAS, The Regents of the University of California having under consideration the Morrill Senate Bill No. 3,256, introduced in the Senate of the United States March 25, 1890, entitled "A bill to establish an educational fund, and apply the proceeds of the public lands, and a portion of the receipts of certain land grant railroad companies, to public education and the more complete endowment and support of colleges for the advancement of scientific and industrial education."

Resolved, That the Board of Regents does hereby approve the provisions and indorse the purposes of the said bill, and recommends its passage. And the President of the University is hereby authorized to transmit a copy of the above preamble and the resolution to the Senate

Committee on Education and Labor having the bill in charge, under his official indorsement.

[Adopted, May 13, 1890.]

41. RELATING TO THE LICK ASTRONOMICAL DEPARTMENT.

Lease to R. F. Morrow.

Regent Phelps reported that the lease to Robert F. Morrow, covering certain lands on Mount Hamilton, would expire March 1, 1890, and recommended that a new lease be executed to R. F. Morrow for a term of three years.

On motion, the Committee on Lick Observatory was authorized to execute a lease for three years to R. F. Morrow. [February 11, 1890.] The lease was executed.

Planting Trees on Mount Hamilton.

We recommend that \$100 be appropriated for planting trees, and trees only, at Mount Hamilton by the Agricultural Department of the University, under the direction of the Committee on Lick Observatory. [Report of Committee on Lick Observatory; adopted, December 10, 1889.]

Repairs to Retaining Walls.

It is necessary that the retaining wall protecting the upper side of the roads on Mount Hamilton be rebuilt. The material used is a friable sandstone, which is rapidly going to pieces. We have instructed the Director to rebuild with brick and cement, and to use the men on the grounds for that purpose. There is some cement at the Observatory, but more will be needed. The cost of the new retaining wall should be charged against the balance of \$3,626 21 in the hands of the Lick Trust. [Report of Committee on Lick Observatory; approved, June 24, 1890.]

Brick Buildings on Mount Hamilton to be Oiled.

Your committee is of the opinion that the exterior of the brick buildings on Mount Hamilton should be oiled with crude petroleum. The cost will be less, and the work will be more serviceable than any other material.

We submit the proposition with the recommendation that the committee be authorized to carry out this plan at the least possible cost. The cost can be charged to the budget apportionment of the Lick Observatory. [Report of the Committee on Lick Observatory; concurred in, June 24, 1890.]

Improvement of Floor around Lick Mausoleum.

Regent Phelps presented a letter from the Secretary of the Lick Trustees in relation to the improvement of the floor around the Lick Mausoleum, and moved that said improvement be made.

As an amendment, Regent Hager moved that the Lick Trustees, with the consent and approval of the Committee on Lick Observatory, be authorized to complete the improvements to the Lick Mausoleum. Cost

to be paid out of the balance of the Lick Fund now in the hands of the Trustees. [Adopted as amended, July 23, 1889.]

The plans for the foregoing improvements have been revised, and the work will be delayed.

Insurance of Frame Buildings on Mount Hamilton.

Regent Hallidie reported that insurance, amounting to \$4,300, upon certain frame buildings on Mount Hamilton, belonging to the Lick Astronomical Department, had expired. A motion to renew policies covering \$4,300 on said buildings, was adopted. [June 10, 1890.]

Insurance of Large Dome.

Regent Phelps moved that, as the dome at the south end of the Lick Observatory was built of stone and iron, and was fireproof, that the insurance on the same be not renewed. [Adopted, July 23, 1890.]

Regent Hager offered the following:

Resolved, That the professors and astronomers at the Lick Observatory be authorized to take books, etc., from the library at Berkeley, on the same terms allowed the professors at Berkeley. [Adopted, September 10, 1889.]

Report of the Committee on Library and Museum.

Binding of Books, etc., for the Lick Observatory Library.

The reports of the Director of the Lick Observatory and the Librarian of the University, show that there are a number of books and pamphlets at the Lick Observatory Library requiring binding—making seven hundred and twenty-nine volumes, at an estimated cost of about \$420.

Ordered that the books be bound, and that \$420 be appropriated for that purpose from the General Fund. [September 10, 1889.]

Purchase and Subscription of "Himmel und Erde."

For purchase and subscription of "Himmel und Erde," monthly (Berlin), from October, 1889, to October, 1890. Cost, \$5. [Concurred in, November 12, 1889.]

Purchase of Argelander's Atlas.

We recommend the purchase of Argelander's Atlas for the Lick Observatory. Cost not to exceed \$45. [Adopted, December 10, 1889.]

Periodicals.

Regent Hager recommended that the following periodicals be subscribed for for the use of the Lick Astronomical Department:

Journal of Mathematics, Vols. 106 and 107.....	\$7 00
Astronomische Nachrichten, Vols. 125 and 126.....	8 00
Bulletin Astronomique, 1890.....	4 75
Observatory, 1890.....	3 50
Nature, 1890.....	6 00
Astronomical Journal, 1890.....	5 50
Annals of Mathematics, 1890.....	2 00
Sidereal Messenger, 1890.....	3 00
Total	\$39 75

[Ordered, March 11, 1890.]

Periodicals; Standing order for.

Regent Stebbins, on behalf of the Committee on Library and Museum, recommended that a standing order be adopted for regular annual subscription to the following periodicals for the use of the Lick Observatory:

Nature (American edition).....	\$6 00
Astronomische Nachrichten (per 2 vols.).....	8 00
The Observatory.....	3 50
Crelle's Journal of Mathematics.....	7 00
Astronomical Journal.....	5 50
Sidereal Messenger (new price).....	3 00
Bulletin Astronomique.....	4 75
Annals of Mathematics.....	2 00
Himmel und Erde.....	5 00

\$44 75

[Concurred in, April 8, 1890.]

Books to be Purchased.

Regent Stebbins, on behalf of the Committee on Library and Museum, submitted a requisition of Director E. S. Holden, requesting that the following books be purchased for the use of the Lick Astronomical Department, payable out of the budget for the next year, recommending that purchase be ordered:

General index to Vols. 1-15 of "Sirius"—3 m.....	\$0 90
Sammlung von Formeln der Mathematik (Dr. W. Laska); 1st Lieferung, \$1 90. 2d Lieferung, 6.50 m., 3d Lieferung, (i) 5 m.....	5 50
J. Bertrand: Calcul des Probabil; tés 1 Vol. 8 ^{mo} 1889—12 fcs.....	3 12
General index to Vols. 1-10. American Journal Mathematics, 1 Vol., 4 ^{mo}	1 00
F. Tisserand: Traité de Mécanique Céleste; Vols. 1-2.....	13 00
V. Koukoly: Praktische Anleitung zur Himmels Photographié, 1 Vol.....	2 00
Pendelbury's Lenses and System of Lenses (6 m.), 1 Vol.....	1 80
Zoellner: Grundzüge einer allgemner Photometrie des Himmels—about 7 marks.....	2 10
General Analytical Index to Encyclopædia Britannica.....	6 00

Not to exceed \$36 00

Concurred in, and purchase ordered. [June 10, 1890.]

Appointment of a Secretary of the Lick Observatory.

In the matter of the appointment of a Secretary of the Lick Observatory, vice Mr. Hill, resigned, referred to this committee by the Board, September 10, 1889, we recommend that Augustus J. Burnham be temporarily appointed Secretary, with a salary of \$50 per month, to date from October 1, 1889.

On motion, the report was amended so as to read "from September 15, 1889." (Report of Committee on Lick Observatory.)

Recommendation concurred in as amended. [November 12, 1889.]

Appointment of a Laborer at the Lick Observatory.

Resolved, That Hugh Kennedy be employed at the Lick Observatory as a laborer, at a salary of sixty (\$60) dollars per month. [Report of Committee on Lick Observatory; adopted, July 23, 1890.]

Post Office on Mount Hamilton.

It is the opinion of this committee that a Government Post Office is needed at Mount Hamilton, and we therefore recommend the adoption of the following resolution:

Resolved, That the California delegation in Congress be requested to use their influence to procure the establishment of a postal route between San José and Mount Hamilton, in the County of Santa Clara, and a Post Office at the Lick Observatory, with Mr. S. W. Burnham as Postmaster. [Report of Committee on Lick Observatory; adopted, November 12, 1889.]

In December, 1889, a Post Office was established at Mount Hamilton, and S. W. Burnham was appointed Postmaster.

Purchase of Mules.

Resolved, That the Committee on Lick Observatory be authorized to purchase, at a cost not to exceed \$300, a span of mules, to be used for all work at the Observatory, and to sell the team now on hand. [Report of the Committee on the Lick Observatory; adopted, July 23, 1889.]

Claim of Mount Hamilton Stage Company.

We present herewith the claim of the Mount Hamilton Stage Company for \$400, for carrying mail, expressage, and freight between Mount Hamilton and San José, without recommendation. [Report of the Finance Committee; ordered paid, January 18, 1890.]

Donation of \$200 to Purchase a Spectroscope.

Regent Phelps, Chairman of the Committee on the Lick Observatory, read the following letter from Director E. S. Holden:

MOUNT HAMILTON, February 6, 1890.

Hon. T. G. PHELPS, Chairman Lick Observatory Committee (through Secretary of the University of California):

DEAR SIR: The American Association for the Advancement of Science has a fund whose interest is spent in grants in aid of science. I applied for \$300 of this fund for a small spectroscope, to use with the 36-inch equatorial, and gave reasons for wanting it, which were sufficient to the Trustees of the fund. They agreed that it was needed. Objection was made to granting the \$300 to the Lick Observatory, because "California was a rich State," and "because Professor Holden could easily raise the money by writing a couple of letters," etc., etc. Professor Pickering, Director of Harvard College Observatory, stood our friend, and finally got the Trustees to promise to give us \$200, if we would raise \$100. The money is to buy a spectroscope to remain permanently at the Lick Observatory.

Accordingly, I beg to submit herewith a requisition for \$100, part payment for this instrument.

I am, dear sir, very respectfully yours,

E. S. HOLDEN.

Regent Phelps recommended that \$100 be appropriated for the purchase of a spectroscope, as requested. [Concurred in, February 11, 1890.]

Hotel on Mount Hamilton.

Regent Hager, from the Committee on the Lick Observatory, presented the following:

Resolved, In the opinion of this Board it is necessary for the uses and purposes of the Lick Observatory, that there should be erected on the grounds of the Observatory, buildings sufficient to afford to officers, employés, students, and visitors, necessary accommodations, board, lodging, etc., and in order to carry out such purpose the Committee on the Lick Observatory is authorized to negotiate and to report any proposed agreement for the consideration and action of this Board. [Adopted, January 18, 1890.]

The following is the agreement entered into:

This agreement made by and between the Regents of the University of California, parties of the first part, a corporation, and Alexis B. Chapin, party of the second part, witnesseth: That whereas, the parties of the first part possess, under and by virtue of an Act of Congress entitled "An Act granting a site for an Observatory to the Trustees of the Lick Observatory of the Astronomical Department of the University of California," approved June 7, 1876, all that piece, parcel, or tract of land hereinafter particularly described; and whereas, in the opinion of the Board of Regents, it is necessary for the uses, purposes, and proper administration of said Lick Observatory that there should be erected on said tract of land buildings to afford suitable accommodation, board, lodging, etc., for the employés of said Observatory and such persons as may visit the same; and whereas, the said party of the second part has proposed in writing to erect, finish, maintain, and conduct such buildings upon said particularly described tract of land.

Now, in consideration of the premises, said party of the first part hereby grants, for the term of ten years from the date hereof, the privilege and license to said party of the second part to construct such buildings for the purpose aforesaid, on the tract of land situated in Santa Clara County, State of California, described as follows, to wit:

Description ———

Among other covenants, it is expressly agreed by said parties:

First—That upon and contemporaneous with the execution hereof, said party of the second part shall and will execute and deliver a good and sufficient bond to said party of the first part in the sum of \$5,000, with two sureties, to be approved by said first party, to the effect that said second party will immediately proceed to erect on said premises said buildings, and complete the same on or before the——day of——, 1890, together with the necessary stables, barns, outhouses and fences, and also a reservoir or reservoirs for water, convenient and sufficient for said purposes.

That the main building shall contain not less than thirty rooms, and other buildings and improvements shall be erected according to the plans and specifications to be furnished by said second party, and approved by said first party. Said buildings may, upon like approval, be enlarged, from time to time, as may be required.

Second—Said party of the second part agrees and promises to manage and conduct said premises in an orderly and respectable manner, and to exclude therefrom all disorderly persons; and, further, not to sell, or permit to be sold on said premises, malt or spirituous liquors of any kind, except it be wine to visitors, and then only in bottles in quantities of not less than one pint or quart.

Third—This license and agreement is personal to said second party, and is not assignable without the consent of the party of the first part, given in writing.

Fourth—Any violation of the covenants, agreements, or provisions of this agreement, or any or either thereof, shall work a forfeiture of the same, and shall authorize said first party, at its option and without notice, to close said buildings and eject all persons from said premises, either with or without legal proceedings, and to take possession thereof, and said second party expressly waives all claims for damages by reason thereof.

Fifth—At the expiration of the term of this instrument, the said second party shall have the right to a ten years' renewal thereof, upon the same terms and conditions, on a request made to said parties of the first part thereof, in writing, duly served on said first party six months prior to said expiration hereof.

Sixth—Upon the termination of this license and agreement, or the period for which the same may be renewed, in case of renewal thereof, the parties of the first part shall have the option to purchase and, with that view, to request an appraisalment of all the improvements made or placed upon said premises by said second party, under and by authority of this agreement, and may or may not, as said first party shall elect, purchase all said buildings and other improvements made and erected on said premises by said second party at such appraisalment, to be made by three appraisers, to be selected, one each by

the parties hereto, and the third one by said appraisers so selected. The sum fixed as the value of said property by any two of said appraisers shall be the appraised value thereof for the purposes of this covenant, provided nothing shall be allowed for the reservoirs, and also that the value of the brick used in the walls, foundation, and chimneys of said buildings shall be deducted from the appraised value thereof.

It being understood and agreed that said second party may use not to exceed fifty thousand bricks, now on said premises, and belonging to said first party, for said reservoirs, chimneys, foundation, and walls.

In witness whereof, the said parties hereto have this — day of —, 1890, executed and delivered the foregoing instrument.

Repair of Telegraph and Telephone Lines.

We recommend that \$300 be appropriated for repair and improvement of the Lick Observatory telephone and telegraph lines. [Report of the Committee on the Lick Observatory; adopted, December 10, 1889.]

Proposed Agreement with Western Union Telegraph Company.

Regent Phelps presented from the Committee on the Lick Observatory the following proposed agreement with the Western Union Telegraph Company:

This agreement, made and entered into this—day of—, 1890, by and between the Western Union Telegraph Company, party of the first part, hereinafter for convenience called the Telegraph Company, and the Regents of the University of California, party of the second part, hereinafter for convenience called the Regents.

Witneseth: That whereas, the Regents own a line of telegraph poles and two wires along the highway between San José, California, and the Lick Observatory, on the summit of Mount Hamilton, Santa Clara County, California, which line of poles and wires it is proposed shall be leased to the Telegraph Company.

Now, therefore, for and in consideration of the covenants and agreements herein contained, the parties hereto have mutually agreed as follows:

First—The Regents hereby lease to the Telegraph Company all of said line of poles and said two wires, together with the insulators and appurtenances thereto belonging, with the exclusive right to erect and maintain on said poles such additional wires as the Telegraph Company may deem expedient, together with the right to use and operate said poles and wires, and to enjoy the returns and profits thereof as fully and effectually as could be done by the Regents; to have and to hold the same unto the Telegraph Company, its successors and assigns, during the continuance of this agreement. The Telegraph Company agrees to maintain said poles and said two wires in good order and repair at its own expense. Upon the termination of this agreement, the Telegraph Company agrees to return said poles and two wires, together with the insulators, fixtures, and appurtenances thereof, to the Regents, in like good order and repair as when received by the Telegraph Company, ordinary wear and tear excepted.

Second—The Regents agree to furnish to the Telegraph Company at the Lick Observatory, correct time signals of the standard time of said Observatory daily, at such time as the Telegraph Company may require. The Regents hereby grant to the Telegraph Company the exclusive right to receive, transmit, deliver, and dispose of, at its own risk, such time signals from said Lick Observatory, to and at all points where the Telegraph Company may desire to use or dispose of said signals, it being understood and agreed that the Telegraph Company may make use of said time signals for its own account and benefit as the Telegraph Company may deem proper. It is, however, expressly agreed, that the Regents shall not be responsible for the accuracy of such time signals.

Third—If the Telegraph Company shall, at any time during the continuance of this agreement, establish a telegraph office for the transaction of commercial or public telegraph business at the Lick Observatory, the Regents agree to furnish suitable office room therefor, and the Telegraph Company shall furnish the necessary instruments, batteries, and supplies, and a competent and proper telegraph operator for said telegraph office, the appointment of said operator to be approved by the Regents; it being understood that the Telegraph Company shall have and retain all receipts for such telegraph business.

Fourth—In case the Telegraph Company shall establish said telegraph office at said Observatory, one of the two wires hereby leased shall be used for commercial or public telegraph business, and time signals, and the other wire may be used by the Regents and, under their direction, by their employés as a private telephone wire between said Observatory, San José, and the University of California, at Berkeley; *provided, however*, that no public telephone business, and no business for any person or party other than the Regents and their employés, shall, without the consent of the Telegraph Company, be sent or received over said wire after the establishment of said office at said Observatory.

Fifth—In consideration of the performance of the foregoing covenants and agreements by the Regents, the Telegraph Company agrees to transmit from its San José office, and

after the establishment of a telegraph office in said Lick Observatory, then from that office, messages by, to, or for the Regents, or any of them or their employes, as may be required, and directly pertaining to and connected with the administration of affairs of said University, or of said Lick Observatory, free and without charge, and all messages for the public at usual and reasonable rates.

Sixth—The provisions of this agreement shall take effect on the — day of —, 1890, and shall be and continue in force, for and during the term of five (5) years from said date.

Seventh—It is further agreed that any failure to perform, or default in the performance of any of the covenants or obligations herein provided for on the part of said Telegraph Company, may, at the option of said Regents, be taken and deemed to be a forfeiture of this agreement and all rights thereunder, without further notice. In witness whereof, the parties hereto have caused the names of their proper officers to be hereunto subscribed, and their corporate seals to be hereto fixed and tested, the day and year first above written.

THE WESTERN UNION TELEGRAPH COMPANY.

By ———, Vice-President.

———, Secretary.

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA.

By ———.

Regent Phelps then read the following letter:

SAN FRANCISCO, January 13, 1890.

T. G. PHELPS, *Esq.*, Office Collector of Customs, San Francisco:

DEAR SIR: Referring to inclosed draft of proposed agreement between this company and the Regents of the University of California, I regret that I cannot approve the fifth clause, which would require this company to transmit free of charge from San José or from the Lick Observatory, all messages filed by the Regents of the University, or any of them, or their employes, pertaining to the administration or business of both the University of California and of the Lick Observatory, to all points in the United States without limit.

Such was not my understanding of the proposition made by Judge Hager and Mr. Bartlett at our last interview. The proposition made by the latter, as I understood it, required the telegraph company to transmit free of charge all messages for the Regents or their employes pertaining to the administration or business of the Lick Observatory, between the office of the Regents at San Francisco or Berkeley and San José, and the Lick Observatory, after the establishment of the telegraph office at that point.

I trust you will understand that I do not desire to make any speculation out of the proposed agreement, or, in fact, to make any profit whatever. The present telegraph line between San José and the Lick Observatory is in very bad condition, and requires immediate reconstruction to make it serviceable. The expense of rebuilding the line, and of maintaining it in good order and repair for the term of five years, will be quite large, and if the telegraph company assumes this expense, and in addition thereto transmits the messages of the Regents and their employes, pertaining to the business of the Observatory, between the Observatory or San José and San Francisco and Berkeley, I think we will be doing all that the circumstances warrant.

Under no circumstances could we assume the burden of transmitting all the messages of the Regents and their employes pertaining to the business of the University, to all points in the United States without limit.

I will be very glad if your committee will reconsider the matter.

Very respectfully,

FRANK JAYNES,
Superintendent.

Regent Phelps presented the following:

Resolved, That the Committee on Lick Observatory be and hereby is authorized to amend the lease of the telegraph line from San José to Mount Hamilton, as read, so as to meet the objections of the Western Union Telegraph Company, and after making such amendments, to execute the same on behalf of the Regents.

The foregoing resolution was amended so as to require the President and Secretary of the Board of Regents to execute the agreement with the said telegraph company.

The resolution, as amended, was adopted. [January 18, 1890.]

The Western Union Telegraph Company refused to accept the contract as amended.

Eclipse of 1890.

WHEREAS, Regent Charles F. Crocker has generously offered to bear the expense of an expedition to Cayenne, South America, to observe the total solar eclipse of December, 1889; therefore,

Resolved, That Messrs. Burnham and Schaeberle are hereby authorized to proceed, without loss of salary, on or about November 1, 1889, to Cayenne, and establish at some proper point an eclipse station, and to remain there as long as the proper observance of said eclipse and such other work in connection therewith as may be necessary, not later than February 1, 1890; *provided*, that such expedition shall be entirely without cost to the University of California, and that the safe return of all instruments belonging to the Lick Observatory, which may be used in such expedition, shall be fully insured; further, be it

Resolved, That the Director of the Lick Observatory be instructed to prepare general plans and directions for the expedition, and that Director Holden be instructed to furnish such instruments as can be spared and are necessary for use on the expedition. (Report of Committee on the Lick Observatory.)

On motion, adopted. [July 23, 1889.]

Pamphlet on Eclipse of 1890.

Regent Phelps reported that the Lick Observatory expedition to examine the recent eclipse had been successful, and submitted the following:

Resolved, That one thousand copies of a pamphlet on the eclipse of the sun of December 21, 1889, be ordered printed by the State Printer. [Adopted, January 18, 1890.]

Thanks to Regent Crocker.

Regent Rodgers offered the following:

WHEREAS, The Lick Observatory Eclipse Expedition to South America has produced results of lasting value to science; therefore,

Resolved, That the Board of Regents hereby tenders its thanks to Regent Chas. F. Crocker, for his generous and timely assistance in the matter of providing for the equipment and expenses of this expedition, and its congratulations that the results attained are so satisfactory. [Adopted, May 13, 1890.]

42. REPORTS OF THE COMMITTEE ON LIBRARY AND MUSEUM.

Exchange with President Davis.

That the Librarian be authorized to allow President Davis to take from the Library, in exchange for books, etc., donated by him to the University, duplicates (three volumes) of the reports of the U. S. Commissioner of Education for 1880, 1883-4, and 1884-5, as requested by letter of August 7, 1889. [Concurred in, September 10, 1889.]

Bids for Binding.

Resolved, That the Committee on Library and Museum be authorized to invite proposals for binding and marking books and pamphlets belonging to the University. [On motion, adopted, September 10, 1889.]

Purchase of Missing Numbers of North American Review.

That the purchase of certain missing numbers of the North American Review (N. S.) be made, as recommended by the Librarian by letter of September 4, 1889. Cost not to exceed \$12 60. [Concurred in, September 10, 1889.]

Apportionment of the Reese Fund.

An apportionment of the Reese Fund, and the purchase of books among the departments, is herewith reported:

Agriculture, Botany, Viticulture—Hilgard.....	\$275 00
Astronomy, Civil Engineering—Soulé.....	200 00
Chemistry—Rising.....	200 00
Drawing—Kower.....	50 00
English Language and Literature—Gayley.....	300 00
Esthetics (special for this year only)—Gayley.....	100 00
French Language and Literature—Paget.....	100 00
German Language and Literature—Putzker.....	100 00
Greek Language and Literature—Bunnell.....	200 00
Geology, Physiology, Zoölogy—Joseph Le Conte.....	225 00
Natural History in General—Rivers.....	100 00
History, Politics, Social Science in general—Moses.....	300 00
History, Biography, Constitution, Politics—Jones.....	100 00
Latin Language, Literature, Archæology—Howard.....	200 00
Mathematics—Stringham.....	250 00
Mechanics, Mechanical Engineering—Hesse.....	200 00
Military Science—Harrison.....	50 00
Mineralogy, Economic Geology, etc.—Jackson.....	100 00
Mining—Christy.....	200 00
Philosophy—Howison.....	250 00
Physics—John Le Conte.....	200 00
Works of reference, sets of periodicals, works of fine art—Librarian.....	300 00
	<hr/>
	\$4,000 00

[Concurred in, November 12, 1889.]

Periodicals to be Subscribed For.

Regent Hager, Chairman of Committee on Library and Museum, recommended that the Secretary be authorized to subscribe for the following periodicals, to make up the amount formerly ordered for purchase of periodicals:

American Anthropologist.....	\$3 00
American Journal of Folklore.....	3 00
American Journal of Archaeology.....	5 00
Magazine of Western History.....	3 20
Electrician (London).....	4 50
New Review (London).....	1 75
New England Magazine.....	3 00

\$23 45

[Concurred in, January 18, 1890.]

Books for English Department.

Regent Hager, on behalf of the Committee on Library and Museum, presented a requisition from Professor Gayley for the following books: Philolog. Society Dictionary, Part V, \$3 25; Bosworth-Toller Anglo-Saxon Dictionary, 15 shillings; and recommended that they be purchased by the Secretary. [Concurred in, February 11, 1890.]

Binding Books.

Regent Hager presented the report of the Committee on Library and Museum:

There is immediate necessity for the binding of a number of books, etc., for the Reese Library. These books will be bound under the contract lately made with the Hicks-Judd Co. We therefore recommend that the sum of \$375 be appropriated from the apportionment for the library for the binding of said books.

The apportionment was \$1,000. [Carried, February 11, 1890.]

Collection of Mollusca.

Regent Hager, Chairman of the Committee on Library and Museum, presented the following:

Resolved, That the application of Mr. O. Button, to sell to the University a collection of mollusca, be referred to Prof. Joseph Le Conte for examination, with the request that he would report his opinion to the Committee on Museum. [Adopted, March 11, 1890.]

43. DONATIONS.

UNIVERSITY OF CALIFORNIA, November 11, 1889.

Hon. HORACE DAVIS, President of the University:

DEAR SIR: I have the honor to inform you of the receipt by the Mining Department of the University of the gift by Mr. Eckley B. Coxe, of Drifton, Lucerne County, Pennsylvania, of a working model of his patent gyrating screen for classifying ores. This model was constructed especially for the University of California, in accordance with a promise made to me at the time of my visit to his mines in Pennsylvania in the summer of 1888. A similar model has been on exhibition at the Paris Exposition of this year. Will you kindly call this matter to the attention of the Board of Regents at its next meeting, in order that a proper acknowledgment may be made of the gift.

I am, sir, with much respect, very sincerely yours,

SAMUEL B. CHRISTY.

Read, and the Secretary was directed to transmit to the donor the thanks of the Board. [November 12, 1889.]

SAN FRANCISCO, October 1, 1889.

The honorable Board of Regents, University of California, Berkeley, Cal.:

GENTLEMEN: I have the honor to offer for your acceptance the files of the San Francisco "Daily Bulletin" and Sacramento "Record-Union," from April, 1873, to the present time, which will complete the files of these now in the Library of the University. The latter were purchased from me by the late William E. Sharon, and presented by him to the University. I take pleasure in making his gift complete.

Very respectfully,

L. P. FISHER.

The gift was received, and the Secretary was directed to express to Mr. Fisher the thanks of the Board. [November 12, 1889.]

44. RELATING TO THE UNIVERSITY SITE.

Pipes of Alameda Water Company.

Regent Martin presented the following report:

The communication of Moses Hopkins, heretofore under consideration by this Board, with reference to a privilege for imbedding and carrying certain water pipes over the University ground, which was referred to the Committee on Grounds and the counsel of the Board at your last meeting, after due consideration the committee herewith beg leave to report and recommend: That a revokable license be and is hereby granted to said petitioner to pass underground over the eastern boundary of the University grounds to a point where a certain roadway intersects Strawberry Creek; thence, following said roadway southerly and westerly in the direction of Prospect Street, over the lands recently purchased from H. A. and Jane O. D. Palmer.

On motion, the following amendment to the report of the committee was adopted: "That a license revokable at the pleasure of the Board of Regents."

On motion, the following amendment was adopted: "As shown by the accompanying map."

Recommendations concurred in, and report adopted. [September 10, 1890.]

Use of the Tunnel.

Application of C. L. Hill, C. A. Klinkner, and B. C. Brown for permission to use the tunnel on the University grounds to make experiments in raising mushrooms. [Refused, November 12, 1889.]

Repair of Sidewalk.

Regent Rodgers offered the following:

Resolved, That the Committee on Grounds and Buildings be authorized immediately to cause the sidewalks on the University grounds at Berkeley to be repaired, and to provide for more comfortable quarters for students when not in class-rooms. [Adopted, January 18, 1890.]

The sidewalks were repaired, but it was found impossible to provide more comfortable quarters for students when not in class-rooms.

Reports of the Committee on Grounds and Buildings.

Street Improvements.

In the matter of the street improvements suggested by the Trustees of the town of Berkeley, we report the probable cost as instructed by the Board:

Oxford Street—grading, macadamizing, guttering, and sidewalks.....	\$6,000 00
Cost of one half to the University, \$3,000.	
Culvert on Oxford Street (brick or stone).....	2,000 00
Cost of one half to the University, \$1,000.	
Allston Way—grading, macadamizing, guttering, and sidewalks	6,000 00
Cost of one half to the University, \$3,000.	
Total cost	\$14,000 00
Cost of one half to the University, \$7,000.	

Your committee submits the following recommendations:

1. That Allston Way be improved at a cost not to exceed \$3,000. Amended so as to read: "That the north half of Allston Way belonging to the University be improved at a cost not to exceed \$3,500, by the Committee on Grounds and Buildings, if deemed advisable by them." [Concurred in as amended, March 11, 1890.]

The improvement of Allston Way will be begun about September 1, 1890.

2. That the improvement of Oxford Street be not undertaken at the present time, except in building a culvert to carry the water of Strawberry Creek. [Concurred in, March 11, 1890.]

We recommend that \$1,000 be appropriated to cover the cost to the University of building said culvert. [Concurred in, March 11, 1890.]

The culvert has been repaired. The building of a new culvert will be delayed.

3. A portion of the University site drains its water into the corner of Oxford Street and College Way, to the injury of the property in that neighborhood. This should be corrected at once.

We recommend that \$100 be appropriated for this purpose. [Concurred in, March 11, 1890.]

The work recommended by the committee has been completed.

Employment of a Painter.

Your Committee on Grounds and Buildings is of the opinion that all the buildings at Berkeley should be painted. There is constant work for one painter; we therefore recommend the adoption of the following resolution:

Resolved, That the Secretary be authorized to appoint a painter, with a salary of \$75 per month, subject to the approval of the Committee on Grounds and Buildings. [Adopted, December 10, 1889.]

The employment of a painter has been deferred.

Painting.

We recommend that the exterior of the Harmon Gymnasium and North Hall be painted; that the brick work of South Hall, the Bacon Art and Library building, and the Mechanic Arts building be cleaned

and oiled, and that the iron and wood work and roofs be painted, and that this work be done during the coming summer vacation, according to specifications to be prepared by the committee. We further recommend that the committee be authorized to advertise for bids and employ a Superintendent. The probable cost of the work here noted will be about \$3,800. [Concurred in, March 11, 1890.]

Your committee advertised for bids for painting the North and South Halls, the Bacon Art and Library buildings, the Mechanic Arts building, and the Harmon Gymnasium, and on the twenty-eighth of April opened the following bids in the presence of the bidders:

No. 1. Farwell & Co.	\$2,973 00
No. 2. Wood & Bros.	3,200 00
No. 3. Geo. C. Gottung	2,245 00
No. 4. C. M. Bumbaugh	2,670 00
No. 5. M. J. Donovan	2,985 00

Each bid was accompanied by the requisite bond or a certified check. Mr. Geo. C. Gottung's bid of \$2,245 is the lowest bid, but did not include the outside attached wooden buildings of the Mechanic Arts building. He exhibited his estimates showing that he had estimated the cost of painting the attached wooden buildings of the Mechanic Arts building at \$250; that he did not understand that these attached buildings were included in the advertisement. Mr. Gottung's supplementary bid of \$250 was given in the presence of all the bidders, and no objection was made thereto. The question arises whether it is to be accepted, and this point is now referred to the Board. If the supplementary bid is to be accepted, the award should be made to Geo. C. Gottung. His total bid would be \$2,495. The next lowest bid is that of C. M. Bumbaugh—\$2,670.

The bid of George C. Gottung was accepted, and the contract awarded to him in the sum of \$2,495. [May 13, 1890.]

The greater part of the foregoing work has been finished; the remainder will be completed in July or August of the current year.

Fire and Time Alarms.

Your committee has considered the proposition to make electric fire alarms and apparatus for electric calls for class hours, and is firmly of the opinion that both ought to be established. The cost by contract would be about \$1,200; under the direction of the College of Mechanics, about \$347. We recommend that said amount be appropriated for the purchase of needed material.

On motion, \$347 was appropriated. [May 13, 1890.]

The work recommended by the committee has been partly done, and will be finished in October next.

45. REPORT OF THE LAW COMMITTEE.

Your Committee on Law recommends that the application for payment of \$72 03, on behalf of W. M. Diggins, for work done on Audubon Street, Berkeley, be denied. [Concurred in, February 11, 1890.]

Report of the Secretary accompanying the report of the Law Committee:

FEBRUARY 10, 1890.

To the Law Committee:

GENTLEMEN: In the matter of a certain bill for work done on Audubon Street, I beg leave to say:

1. That the charge is for the whole length of Audubon Street, say one thousand one hundred feet.

2. That the contractor was notified by me that the Regents would not be chargeable for any portion of said work. This notice was given him when he began work.

3. I agreed to submit the question to a committee at the start, but the contractor went on and did his work without our consent and against our protest.

4. The charge is an indirect attempt to tax the University for work done without its consent.

Respectfully,

J. H. C. BONTÉ,
Secretary.

FINANCIAL AND OTHER STATEMENTS.

1. VALUE OF PROPERTY BELONGING TO THE UNIVERSITY.

The plant at Berkeley:

245 $\frac{7}{10}$ acres of ground, at market price of real estate, \$5,600 per acre.....	\$1,376,088 00	
Buildings.....	552,000 00	
Apparatus and other contents of buildings.....	300,000 00	
		\$2,228,088 00
Plant at Mount Hamilton.....		582,925 00
Medical College building, San Francisco.....		25,000 00
United States Land Grant—principal in process of payment.....		43,184 51
Unsold land—5,658 $\frac{8}{100}$ acres, at say, \$5 per acre.....		28,294 90
		<u>\$2,907,492 41</u>

2. CASH CAPITAL JUNE 30, 1890.

Consolidated Perpetual Endowment Fund.

Bearing interest.....	\$1,724,064 94
Cash (awaiting investment).....	6,005 06
Montgomery Avenue Bonds (not bearing interest).....	22,000 00
Dupont Street Bonds (not bearing interest).....	20,000 00
	<u>\$1,772,070 00</u>

Special Funds.

Lick Observatory Fund.....	\$90,000 00
Reese Fund (Library).....	50,000 00
D. O. Mills Endowment.....	91,922 16
University Medal Fund.....	3,188 54
Tompkins Endowment.....	3,858 15
F. L. A. Pioche Donation.....	2,053 22
	<u>241,022 07</u>
	<u>\$2,013,092 07</u>
State tax of 1 per cent on each \$100 of value of the taxable property of the State. Amount received for the year 1889-90, being interest at 5 per cent on.....	2,024,117 80
	<u>\$4,037,209 87</u>

3. INVESTMENT.

Consolidated Perpetual Endowment Fund.

Bonds	\$977,500 00
Diverted funds (as per account of March 4, 1881)	79,750 00
Mortgages to June 30, 1890	708,814 94

\$1,766,064 94

Special Funds.

Lick Observatory Fund (bonds)	\$90,000 00
Reese Fund (mortgages)	50,000 00
D. O. Mills Endowment (mortgages)	85,865 76
University Medal Fund (mortgages)	3,000 00
Tompkins Endowment (mortgages)	607 78
Pioche Donation Fund (mortgages)	1,851 52

231,325 06

\$1,997,390 00

Cash Awaiting Investment June 30, 1890.

Consolidated Perpetual Endowment Fund	\$6,005 06
D. O. Mills Endowment	6,056 40
University Medal Fund	188 54
Tompkins Endowment	3,250 37
Pioche Donation Fund	201 70

15,702 07

\$2,013,092 07

4. LOANS MADE DURING THE FISCAL YEAR ENDING JUNE 30, 1890.

To N. P. Chipman, on property in Tehama County	\$25,000 00
To D. N. Hastings, on property in Solano County	23,000 00
To J. & J. E. Johnson, on property in Oakland, Alameda County	12,500 09
To J. T. McLean and wife, on property in Alameda, Alameda County	6,000 00
To J. A. Hardin, on property in Mendocino County	20,000 00
To Fritz Boehmer, on property in Alameda, Alameda County	65,000 00

Total

\$151,500 00

5. PAYMENTS ON ACCOUNT OF MORTGAGE NOTES.

Merchants' Exchange Association, partial payment of their note	\$35,000 00
C. H. Huffman, partial payment of his note	15,360 00
Mechanics' Institute, payment in full of their note	45,000 00
G. W. Frank, payment in full of his note	1,687 50

\$97,047 50

6. INCOME FOR THE FISCAL YEAR ENDING JUNE 30, 1890.

Consolidated Perpetual Endowment Fund—Available for Current Expenses.

State and county bonds (including \$5,105 Lick Observatory bonds)	\$58,049 07
Interest on diverted funds	4,785 00
Mortgages	37,505 54
Interest on deferred payments for land	4,056 93
Land fees	178 00
Patent fees	885 00
Rent of cottages	1,374 00
Rent of Bailey tract	30 00
Lick Observatory (rent of land)	50 00
Diploma fees	90 00
Sale of packing boxes	1 25
Hauling platform	2 00
Insurance bonus	9 50
Insurance premium on mortgaged property	26 94
Certified copies of land papers	21 00
Returned freight	11 15
State tax, 1 cent	101,205 89

Total

\$208,271 27

Income of Special Funds.

D. O. Mills Endowment (mortgages)	\$5,090 53
Reese Library Fund (mortgages)	3,219 93
University Medal Fund (mortgages)	181 73
Tompkins Endowment (mortgages)	239 53
Pioche Donation Fund (mortgages)	108 00
Lick Observatory (bonds)	5,105 00
Total	<u>\$13,944 72</u>

7. EXPENDITURES FOR THE FISCAL YEAR ENDING JUNE 30, 1890.

From the General Fund.

Salaries	\$128,392 48
Fuel	973 57
Equipment and repairs	6,087 10
Advertising and printing	301 80
Telegraphing and expressage	492 33
Stationery	257 55
Postage	482 00
Land administration	469 73
Incidental expenses	72 35
College celebrations	234 70
Official and lecturing expenses	982 00
Cottage repairs	178 07
Insurance	4,323 30
Water supply	346 69
College of Agriculture	6,954 22
College of Chemistry	2,936 21
College of Civil Engineering	303 99
College of Mechanics	213 85
College of Mines	264 20
Department of Lick Observatory	4,580 77
Department of Military Science	259 31
Department of Mineralogy	273 16
Department of Physics	416 80
Department of Physical Culture	2,153 97
Library	2,469 69
Museum	825 91
University site improvements	2,981 69
University Printing Office	724 45
	<u>\$168,951 89</u>

From Special Funds.

Lick Observatory Fund	\$5,105 00
D. O. Mills Endowment—salary of Professor	3,999 96
Reese Library Fund—purchase of books	2,490 33
	<u>\$11,595 29</u>

8. EXPENDITURES FROM AGRICULTURAL EXPERIMENT STATION FUND.

Expenditures from the Agricultural Experiment Station Fund (United States appropriation of \$15,000 per annum)	\$15,572 80
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This includes expenditures contracted for in the previous year, ending June 30, 1889, and which are therefore to be charged, in our account with the United States, against the appropriation of 1888-9.

9. RECEIPTS AND EXPENDITURES OF THE REESE LIBRARY FUND TO JUNE 30, 1890.

EXPENDITURES.		RECEIPTS.	
To June 30, 1881.....	\$781 93	To June 30, 1880.....	\$3,444 44
To June 30, 1882.....	5,459 78	To June 30, 1881.....	5,000 00
To June 30, 1883.....	3,235 11	To June 30, 1882.....	3,574 99
To June 30, 1884.....	5,278 19	To June 30, 1883.....	3,000 00
To June 30, 1885.....	3,340 06	To June 30, 1884.....	3,000 00
To June 30, 1886.....	1,945 71	To June 30, 1885.....	1,630 90
To June 30, 1887.....	1,405 84	To June 30, 1886.....	2,825 94
To June 30, 1888.....	3,275 94	To June 30, 1887.....	2,942 73
To June 30, 1889.....	3,321 11	To June 30, 1888.....	3,062 52
To June 30, 1890.....	2,490 33	To June 30, 1889.....	3,182 31
		To June 30, 1890.....	3,219 93
	<u>\$30,534 00</u>		<u>\$34,883 76</u>
Outstanding bills for books estimated at.....	\$2,908 35		
Estimated balance.....	1,441 41	Balance.....	\$4,349 76
	<u>\$4,349 76</u>		<u>\$4,349 76</u>

10. APPORTIONMENTS OF THE REESE FUND.

DEPARTMENT OF—	1881.	1882.	1883.	1886.	1887.	1888.	1889.	Total.
Physics -----	\$250 00	\$125 00	\$125 00	\$86 66	\$125 00	\$100 00	\$200 00	\$1,011 66
Geology and Natural History -----	150 00	150 00	150 00	86 66	150 00	125 00	225 00	1,036 66
Agriculture -----	150 00	100 00	100 00	273 32	125 00	150 00	275 00	1,173 32
Greek -----	100 00	100 00	100 00	65 00	75 00	75 00	200 00	715 00
History and Political Economy -----	125 00	150 00	150 00	166 66	150 00	150 00	300 00	1,191 66
Chemistry -----	150 00	100 00	100 00	133 33	125 00	100 00	200 00	908 33
English -----	150 00	150 00	150 00	133 33	150 00	150 00	400 00	1,283 33
Civil Engineering and Astronomy -----	150 00	100 00	100 00	86 66	100 00	100 00	200 00	836 66
Latin -----	125 00	100 00	100 00	93 33	100 00	75 00	200 00	793 33
Mechanics -----	200 00	150 00	150 00	86 66	150 00	100 00	200 00	1,036 66
Mathematics -----	150 00	100 00	100 00	86 66	100 00	100 00	250 00	886 66
German -----	75 00	50 00	50 00	65 00	60 00	50 00	100 00	450 00
Mineralogy -----	65 00	50 00	50 00	86 66	60 00	75 00	100 00	486 66
Mining and Metallurgy -----	125 00	100 00	100 00	86 66	100 00	100 00	200 00	811 66
Museum -----					97 00	75 00	100 00	272 00
Philosophy -----				86 66	100 00	125 00	250 00	561 66
United States History -----					100 00	100 00	100 00	300 00
French -----			100 00	86 66	80 00	50 00	100 00	416 66
Military -----				33 33	50 00	30 00	50 00	163 33
Physical Laboratory -----				100 00				100 00
Drawing -----								75 00
Librarian -----	550 00		500 00	266 66	433 00	145 00	300 00	2,194 66
Totals -----	\$2,515 00	\$1,525 00	\$2,125 00	\$2,109 90	\$2,430 00	\$2,000 00	\$4,000 00	\$16,704 90

*Expenditures for the Library from the General Fund for the Year ending
June 30, 1890.*

Current expenses	\$192 00
Binding	731 12
Purchase of periodicals	1,046 57
Purchase of books	500 00
	<hr/>
	\$2,469 69

11. STATE APPROPRIATION FOR LIBRARY, \$10,000. [Approved, March
10, 1885.]

	Amount Appportioned to each Department.	Amount Charged to each Department.
Greek	\$88 72	\$60 58
English	600 00	459 08
Mechanics	500 00	365 19
Agriculture	265 72	256 01
Philosophy	1,500 00	1,575 94
Latin	100 00	119 40
Physics	1,000 00	267 74
Geology and Natural History	300 00	1,143 62
Political Economy	796 00	547 36
United States History	1,200 00	808 77
German	360 00	321 05
Chemistry	250 00	299 99
Civil Engineering	300 00	312 30
Mathematics	600 00	168 00
Mining	75 00	61 33
French	100 00	79 49
Mineralogy	70 00	58 02
Museum	225 00	
Military	51 75	25 67
Librarian	1,200 00	2,066 68
For periodicals	438 00	
Custom dues, Consuls' certificates, etc.		41 49
Insurance		60 41
Postage		3 69
Boxes, cases, and packing		65 35
Commission		66 44
Binding		417 65
Freight		337 55
Exchange		1 20
Expressage		10 00
	<hr/>	<hr/>
	\$10,000 19	\$10,000 00

12. STATEMENT FROM DIPLOMA FUND BOOK, SHOWING NUMBER OF
DEPOSITS MADE TO JUNE 30, 1890.

	1886-7.	1887-8.	1888-9.	1889-90.
September	81	102	102	126
October	16	16	26	17
November	2	4	2	5
December	3	2	4	2
January	2	3	2	3
February	2	1	3	11
March	2	1	1	11
April		4		0
May		0		3
June		0		2
Totals	108	133	140	180

	Withdrawn.	Diplomas Issued.	Balance on Deposit.	Total.
1886-7	47	37	24	108
1887-8	50	1	82	133
1888-9	40	0	100	140
1889-90	20	5	155	180
Total remaining on deposit.....	-----	-----	361	-----

13. THE COST OF THE NEW CHEMICAL LABORATORY BUILDING TO JUNE 30, 1890.

Advertising for bids for the construction of the Chemical Laboratory building	\$273 65
Labor, etc., clearing the site	279 00
Clerical work, copying contract	2 50
Salary of Inspector	1,140 00
Payments on account of contract price.....	15,500 00
Architect's commission	1,000 00
Advertising for the construction of the furniture and fittings for the Chemical Laboratory building.....	45 30
Total	<u>\$18,240 45</u>

The cost when finished will be \$70,000.

14. COST OF WATER RECEIVED FROM THE ALAMEDA WATER COMPANY, FOR THE FISCAL YEAR ENDING JUNE 30, 1890.

For the month of June, 1889.....	\$5 96
For the month of September, 1889.....	13 74
For the month of October, 1889.....	28 16
For the months of December, 1889, and January, 1890.....	67 96
For the month of February, 1890	18 60
For the month of March, 1890.....	28 35
	<u>\$162 77</u>

15. UNIVERSITY COTTAGES.

Total cost of building cottages (October, 1874).....	<u>\$27,226 06</u>
Total amount received from rent, from November, 1874, to June 30, 1890.....	\$23,785 67
Total cost of repairs, from November, 1874, to June 30, 1890.....	6,694 65
	<u>\$17,091 02</u>

Showing the interest on the investment (\$27,226 06) for fifteen years and eight months, to be at the rate of 4 per cent per annum—\$1,090 91 per annum.

16. PALMER HOUSE.

In purchasing the Palmer tract, \$10,000 was considered the value of one portion of that tract, namely, the Palmer House and lot. On this basis, and considering the expenditure as an investment, I give the percentage of income on the principal invested:

Cost of Palmer House and lot.....	<u>\$10,000 00</u>
Total amount of rent from June 30, 1888, to June 30, 1890	\$1,500 00
Total cost of repairs for the same period.....	465 06
	<u>\$1,034 94</u>

Showing the interest on the investment to be at the rate of 5.17 per cent per annum.

17. INSURANCE AT BERKELEY.

NORTH HALL.

On the frame building and foundations to same, known as the North Hall... \$80,000 00

Contents.

On portraits and photographs (in event of loss, no one portrait or photograph to be valued at to exceed cost).....	1,000 00
On musical instruments and military accouterments.....	4,500 00
On the contents of the printing office.....	500 00
On instruments and implements for the teaching of physics, engineering apparatus, and other apparatus necessary for the purposes of the University, fixtures and furniture, and all other contents not enumerated above, while contained in aforesaid building, known as the North Hall....	11,800 00

SOUTH HALL.

On the brick, stone, and iron building, and foundations to same, known as the South Hall..... 85,000 00

Contents.

On the contents of the rooms of the Museum of Geology, Ethnology, Zoölogy, and Paleontology.....	25,000 00
On the contents of the rooms of the Mineralogical Museum.....	25,000 00
On the contents of the Geological, Chemical, Physical, and Agricultural Lecture Rooms and Laboratories, fixtures and furniture, engine and boiler, dynamo and electric motor, and all other contents not enumerated above, while contained in aforesaid building, known as the South Hall.....	10,000 00

BACON ART AND LIBRARY BUILDING.

On the brick, stone, and iron building, and foundations to same, known as the Bacon Art and Library building..... 30,000 00

Contents.

On furniture and fixtures.....	2,500 00
On library of printed books.....	31,000 00
On paintings, busts, and bronzes, statuary and other works of art (in event of loss, no one painting to be valued at to exceed \$10,000), while contained in the aforesaid building, known as the Bacon Art and Library building....	39,500 00

MECHANICAL ART COLLEGE BUILDING.

On the brick, stone, and iron building, and foundations to same, known as the Mechanical Art College building..... 25,000 00

Contents.

On fixed and movable machinery, tools, and other appliances and apparatus used for the purposes of the University, engines and boilers, fixtures and furniture, and all other contents, while contained in the aforesaid building, known as the Mechanical Art College building.....	21,200 00
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LABORATORY OF THE COLLEGE OF MINES.

On the frame building and foundations to same, and bridge way connected thereto, known as the Laboratory of the College of Mines..... 3,000 00

LABORATORY OF THE COLLEGE OF MECHANICS.

On the frame building and foundations to same, known as the Laboratory of the College of Mechanics..... 2,000 00

Contents.

On fixed and movable machinery and apparatus necessary for the purposes of the University, engines, and all other contents, while contained in the aforesaid building, known as the Laboratory of the College of Mechanics..	700 00
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GYMNASIUM.

On the frame building and foundations to same, known as the Gymnasium.. 7,500 00

Contents.

On the apparatus and all other contents of the aforesaid building, known as the Gymnasium.....	\$1,500 00
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UNITED STATES AGRICULTURAL EXPERIMENT STATION BUILDING.

On the frame building and foundations to same, known as the United States Agricultural Experiment Station building.....	7,500 00
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Contents.

On apparatus and appliances necessary for the purposes of the University, furnaces, fixtures and furniture, and all other contents, while contained in the aforesaid building, known as the United States Agricultural Experiment Station building.....	750 00
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STUDENTS' OBSERVATORY BUILDING.

On the frame buildings and foundations to same, known as the Students' Observatory building.....	1,500 00
--	----------

Contents.

On apparatus, instruments, and appliances necessary for the purposes of the University, and all other contents, while contained in the aforesaid building, known as the Students' Observatory building.....	4,000 00
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COTTAGES.

On eight cottages, an equal amount on each.....	10,000 00
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STABLE BUILDING.

On the frame stable building.....	1,000 00
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Contents.

On four horses (in event of loss, no one horse to be valued at to exceed \$300).	800 00
On harness and stable implements, while contained in the aforesaid stable building.....	80 00

Total.....	<u>\$432,330 00</u>
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All of the above described buildings situate on the University grounds, Berkeley, Alameda County, California.

The policies of insurance, covering the foregoing items, will expire February 20, 1893. Total premium, \$4,323 30; rate, 1 per cent for three years.

18. INSURANCE ON PROPERTY AT MOUNT HAMILTON.

On brick observatory.....	\$10,000 00
On brick dwelling house.....	35,000 00
On meridian circle house.....	4,500 00
On transit house.....	2,000 00
On photo-heliograph house.....	400 00
On dwelling house No. 1.....	2,000 00
On out building No. 2.....	750 00
On out building No. 3.....	50 00
On out building No. 4.....	50 00
On out building No. 5.....	100 00
On frame kitchen.....	750 00
On furniture in brick dwelling.....	2,500 00
On furniture in house No. 1.....	400 00
On kitchen furniture.....	200 00
On library fixtures and books.....	1,500 00
On chronometer, books, and cases.....	1,550 00
On fixtures.....	10,812 50
Total.....	<u>\$72,562 50</u>

\$15,000 00—Three years from February 17, 1888, at 1 per cent.....	\$150 00
2,500 00—Three years from November 5, 1888, at 1 per cent.....	25 00
10,000 00—Three years from April 6, 1888, at 1 per cent.....	100 00
7,500 00—Three years from March 21, 1888, at 1 per cent.....	75 00
2,500 00—Three years from April 2, 1888, at 1 per cent.....	25 00
25,212 50—Three years from April 6, 1888, at $1\frac{1}{2}$ per cent.....	378 20
4,050 00—Three years from February 17, 1888, at $1\frac{1}{2}$ per cent.....	60 75
1,500 00—Three years from June 1, 1888, at $1\frac{1}{2}$ per cent.....	22 50
3,800 00—Three years from June 4, 1890, at 1.70 per cent.....	64 60
500 00—Three years from June 4, 1890, at 4 per cent.....	20 00
Total premium	\$921 05

19. OTHER INSURANCE.

Insurance on Palmer House.

Buildings	\$6,000 00
\$3,000 at three years from September 9, 1888; \$3,000 at three years from June 19, 1890; total, \$6,000, at 1.20 per cent; premium, \$72 00.	

Insurance on Toland Medical College.

Building	\$2,500 00
Three years from November 20, 1888, at 2 per cent; premium, \$50 00.	

Insurance on Ashburner Clock.

Clock and bell	\$2,000 00
Three years from March 4, 1890, at 2.60 per cent; premium, \$52 00.	

Insurance on Agricultural Experiment Stations.

Paso Robles Station—buildings.....	\$1,800 00
Three years from November 15, 1889, at 1.20 per cent; premium, \$21 60.	
Tulare Station—buildings.....	\$1,500 00
One year from January 15, 1890, at .60 per cent; premium, \$9 00.	

20. LAND DEPARTMENT.

Receipts for the Fiscal Year ending June 30, 1890.

From sales of the grant of 150,000 acres.....	\$28,214 90
From interest on deferred payments due the grant of 150,000 acres.....	4,034 34
From interest on deferred payments of forfeited seminary land.....	22 59
From collections of \$1 25 per acre due the United States on double minimum land.....	1,360 66
From fees for applications, certificates of purchase, and patents.....	1,063 00
From fees due Secretary of State for affixing seal to patents.....	244 00
Total cash receipts	\$34,939 49

Number acres for which certificates of purchase have been issued during the fiscal year ending June 30, 1890.....	929.34
Number acres patented, minimum, during the fiscal year ending June 30, 1890.....	18,068.77
Number acres patented, double minimum, during the fiscal year ending June 30, 1890.....	1,765.32

Account with the Congressional Land Grant of One Hundred and Fifty Thousand Acres.

Whole number of acres patented, minimum, to June 30, 1889.....	61,448.86
Whole number of acres patented, double minimum, to June 30, 1889.....	44,945.03
Total number acres patented to June 30, 1889.....	106,393.89
Whole number acres patented, minimum, from June 30, 1889, to June 30, 1890.....	18,068.77
Whole number acres patented, double minimum, from June 30, 1889, to June 30, 1890.....	1,765.32
	19,834.09
Total number acres patented to June 30, 1890	126,227.98

Whole number acres bearing interest.....	11,447.04	
Whole number acres, full paid, awaiting patents.....	4,929.51	
Whole number acres, full paid, patent fees delinquent.....	560.00	
Approvals, certificates of purchase not issued.....	900.00	
Sold and patented by State Register.....	204.78	
Remaining unsold (abandoned).....	5,658.97	
		23,691.31
Total number of acres listed to the grant of 150,000 acres.....		149,919.29
Selections awaiting action at Washington.....		299.48

21. REPORTS OF THE UNIVERSITY AUDITOR, SUBMITTED TO THE BOARD BY
THE FINANCE COMMITTEE.

SAN FRANCISCO, March 21, 1890.

A. S. HALLIDIE, *Esq.*, *Chairman Finance Committee of the University of California*:

SIR: At the request of the Finance Committee, I have audited the books and accounts of the University of California, in Berkeley, from February, 1889, to February, 1890, inclusive (February, 1889, being the period to which my previous examinations were made). The examination embraced all books of the Land Department, Agricultural Experiment Stations, and the books for the conducting of the business of the Board of Regents of the University of California. All bills and vouchers were gone over in detail, and checked through requisition, order, minutes, voucher, draft on Treasurer, journal and cash books into the ledger ("c").

I find proper bills and vouchers for all payments made on file in the office of the Secretary—the bills and requisitions properly signed by the head of the department making the requisition, Secretary, President, Chairman of the Committee, order of purchase by Finance Committee, approval by Auditing Committee, and approval by the Board of Regents, in session, as shown by the minutes of their meetings.

Additions were gone over in all of the books (three sets), and I find all to be correct, and neatly and properly kept. At my suggestion, January 1, 1889, books of account were opened in the Land Department, consisting (besides those in use) of journal, cash, and ledger, in which all parties were charged with land purchased, thus showing in concise form the condition of land matters—the purchasers and what is due the University (subject to correction of errors and omissions by former Land Agents); these books have and are answering the purpose they were intended for.

The books opened and written up by me, January 1, 1890, for the conducting of the business of the Regents of the University of California, have proved complete in detail, simple in form, and correct as to the expense of each department.

I wish respectfully to call your attention to the insufficient room allowed for the offices of the Secretary, and to the inadequate safe or vault-room for the protection of books and papers. A fire in the building (South Hall) might result in the irreparable loss of valuable books, papers, and documents.

Herewith please find balance sheets to March 1, 1890, of the Land Department, the Agricultural Experiment Stations, and the general

books of accounts of the Regents of the University of California. All of which are respectfully submitted.

JOHN J. HERR,

Auditor of Finance Committee of the Regents of the University of California.

A. S. HALLIDIE, *Esq.*, *Chairman Finance Committee of the Board of Regents of the University of California:*

SIR: I have examined and audited the books of the Regents of the University of California, consisting of the books of the "Land Department," the "Agricultural Experiment Stations," and the "General Books of Account," for the months of March and April, 1890, and find them correct.

Vouchers properly examined, approved, and audited for all payments, are on file in the Secretary's office.

Have also verified the Treasurer's report, the pass books of the savings banks (at the banks), and find the balances in the hands of Treasurer and in the banks, as shown on general ledger.

Herewith please find trial balance of general ledger to May 1, 1890.

Respectfully submitted.

JOHN J. HERR,

Auditor.

Ordered spread on the minutes.

UNIVERSITY OF CALIFORNIA, }
BERKELEY, June 11, 1890. }

A. S. HALLIDIE, *Esq.*, *Chairman of the Finance Committee of the Regents of the University of California:*

SIR: I have examined and audited the books and accounts of the Regents of the University of California, for May, 1890, and find them to be correct.

Have verified the balance in the hands of the Treasurer of the University.

During the month no change has been made (from April, 1890) in the accounts with the various savings banks, the balances being the same as then verified.

Herewith find trial balance from the general ledger for May, 1890.

Respectfully submitted.

JOHN J. HERR,

Auditor.

UNIVERSITY OF CALIFORNIA, }
BERKELEY, July 10, 1890. }

A. S. HALLIDIE, *Esq.*, *Chairman of the Finance Committee of the University of California:*

SIR: I have examined and audited the books and accounts of the Regents of the University of California, for June, 1890, and find them correct.

Vouchers, properly signed, audited, and receipted, are on file in the Secretary's office for all payments.

Have examined and verified balances in the various savings banks with which the Regents have deposited funds, and find them to be as shown in the general ledger. Herewith please find trial balances, taken from the General, Land Department, and Agricultural Experiment Stations' ledgers, for June, 1890.

Also a statement of the "Revenue account" for the year ending June 30, 1890.

Respectfully submitted.

JOHN J. HERR,
Auditor.

22. THE UNIVERSITY LIBRARY.

In this year there has been a large increase in the number of students making use of the library's resources for information and study. This increase is due not so much to the greater number of students attending the University than formerly, but to certain changes in methods of instruction, especially in the Junior and Senior Classes of the literary course, which require more library work.

1890.	A. M.			P. M.				Average.
	10.	11.	12.	1:30.	2:30.	3:30.	4:30.	
April	55.6	69.6	44.9	78.7	70.1	64.4	39.0	60.3
May	62	70.4	45.5	74.5	69.0	63.7	43.0	61.1
Term average.....								60.7

The nearest approach to this number was in 1888, when the term average was 48.2.

Growth.

In addition to pamphlets and maps, there are at this date (June 30) forty-one thousand three hundred and eighteen volumes in the library. For the past year the accessions were as follows:

(a) By purchase (Reese Fund)	984 volumes.
By purchase (General Fund)	23 volumes.
By purchase (German Library Fund)	1 volume.
	1,008 volumes.
(b) By binding of periodicals (General Fund)	321 volumes.
(c) By gift	876 volumes.
Total	2,205 volumes.
Pamphlets received by gift	3,636 numbers.

While the accessions have excelled those of 1888-89 by some three hundred volumes, they still fall below the average annual increase of the last ten years, and it is with earnest solicitude that the Faculties of instruction at Berkeley look forward to the time when generous appropriations from the General Fund of the University may enable the library to keep more fully abreast with the times.

The character of our purchases is the same as in the past; of a few only can we make mention as being of special interest: Preussische

Jahrbücher (63 vols.); Gregorius Nyssenus; Opera omnia, 1615; Burmeister, Denkmäler, des classischen Altertums; 'Ast, Lexicon Platonicum (rare); Du Cange, Glissarium mediæ et infimæ Latinitatis; Dante Gesellschaft, Jahrbuch; Dadenberg, Handwörterbuch der Chemie; Bonifils, Architecture antique (photographs); Biologia Centrali-Americana (Botany complete); Alexander Pope's Works, edited by Elwin and Courthope; Gladstone's Studies on Homer; and the Mermaid series of Best Plays of the Older Dramatists.

Among noteworthy accessions by gift, are the following:

From Robert N. Cust, of London, a collection of his writings, in eight volumes.

From Hon. John T. Doyle, a copy of the Reglamento para el Gobierno de la Provincia de Californias—the reprint (itself very scarce).

From the St. Petersburg Society of Naturalists, a set of its transactions.

From Walter H. Fraser, of the graduating class (1890), twenty volumes—all very useful.

From Prof. E. S. Holden, and from the Lick Observatory, a large number of pamphlets, relating in great part to meteorology.

From Miss M. W. Shinn, of the class of 1880, a large collection of pamphlets, which includes some rare and privately printed Californiana, and an extensive series of contemporary periodicals that will prove very interesting to students of journalism.

From President Horace Davis, besides numerous duplicates, one hundred and forty-eight bound volumes, and six hundred and sixty-nine pamphlets, mostly of interest to the student of United States history and politics. Through his kind offices, we have secured gifts which we credit to original donors.

Miscellaneous Gifts.—From Joseph Rosenberg, a framed photograph of Michael Reese.

From the Class of 1893, its class pin.

There has been placed in the library an elegant emblematic silver trophy for the field day relay race—a gift to the students from President Davis.

New Exchanges.

Exchange of publications has been begun this year with the Universität Jena, Universidad de Granada, Universidad de Zaragoza, and the Université Libre de Bruxelles.

Notes of Work.

Library Bulletin No. 11, "A Guide to the Literature of Æsthetics," prepared by Professors C. M. Gayley and F. N. Scott (of Ann Arbor), has appeared.

The Contents-Index of the Library, a volume of five hundred and nineteen pages, has been printed, and in this form it has proved a great assistance to students.

Library Bulletin No. 1, a combined list of periodical literature preserved in prominent libraries of this coast, has been out of print for some time. It is hoped that in 1891 a new and greatly enlarged edition of this useful guide may be issued.

Considerable table space for students has been gained in the reading-room by the arranging of current files of the scientific, technical, historical, philological, and philosophical periodicals in upright wall cases. A

handsome oak case has been provided for the reception and exhibition of trophies gained by athletic competitions and the like.

Very soon additional bookcases will be required, and the upper gallery in the rotunda should be fully furnished. Later on, the basement of the Bacon building should be made, by means of cement floors, etc., thoroughly damp-proof, and thus much space be utilized.

Art Gallery.

The number of adult visitors to the Art Gallery during 1889-90 was two thousand six hundred and thirty-one persons; the total number of visitors since 1882 being thirty thousand six hundred and forty-seven persons. For several years no additions have been made to our collection of paintings. It is to be hoped that steps may be taken to induce every California artist of note to present to the Art Gallery at least one specimen of his handiwork. It would thus become truly representative of local art, present and past, and visitors to the gallery—a large proportion of whom are tourists from the East and from Europe—would be numbered by thousands instead of hundreds. As a financial venture we believe it would prove to the artists themselves very profitable.

List of donations to the library will be found in the Appendix.

23. OFFICERS OF THE UNIVERSITY CADETS, LIEUTENANT G. F. E. HARRISON IN COMMAND.

On June 19, 1890, Brigadier-General R. H. Orton, Adjutant-General of the State of California, by order of the Commander-in-Chief, announced the following appointments, viz.:

Norman R. Lang, Colonel, with rank from June 25, 1890.
 Henry G. Parker, Lieutenant-Colonel, with rank from June 25, 1890.
 Henry F. Bailey, Major, with rank from June 25, 1890.
 Edward H. Stearns, Captain, with rank from June 25, 1890.
 David G. Jones, Captain, with rank from June 25, 1890.
 Fred. W. McNear, Captain, with rank from June 25, 1890.
 William S. Smith, Captain, with rank from June 25, 1890.
 Guy H. Stokes, First Lieutenant, with rank from June 25, 1890.
 Donzel Stoney, First Lieutenant, with rank from June 25, 1890.
 Richard F. Dean, First Lieutenant, with rank from June 25, 1890.
 Edward C. Hill, First Lieutenant, with rank from June 25, 1890.
 Leslie R. Hewitt, First Lieutenant, with rank from June 25, 1890.
 David C. Demarest, First Lieutenant, with rank from June 25, 1890.
 Samuel S. Peck, Second Lieutenant, with rank from June 25, 1890.
 Arthur F. Mack, Second Lieutenant, with rank from June 25, 1890.
 Jabez A. Jenkins, Second Lieutenant, with rank from June 25, 1890.
 Orrin K. McMurray, Second Lieutenant, with rank from June 25, 1890.

24. UNIVERSITY SITE.

The University site, embracing $245\frac{73}{100}$ acres, is now in reasonably good condition, as much so as is possible with the present supply of water.

The general appearance during the months of July, August, September, and October, is somewhat offensive to the eye; during the remainder of the year it is certainly very beautiful.

Fences.

We have now twelve thousand one hundred and twenty-one feet of fencing—three thousand five hundred and nineteen feet of picket, and eight thousand six hundred and two feet of wire fence, built in 1886. The picket fence needs repainting; with this exception all the fences are in good order.

The tracts of land known as the Palmer and Bailey tracts, embracing $48\frac{73}{100}$ acres, are not fenced; hence, there is considerable difficulty in their management.

It is deemed advisable to fence these tracts, and make separate fields, so that they can be pastured, thus saving the necessity of burning off the grass during the summer.

At present we have no practical control over these lands, as they are open to all comers.

Roads.

The macadamized roads are still in good condition, showing the valuable character of the University macadam.

It is believed that the quarry should be opened for further use. The gravel obtained from the bed of Strawberry Creek is of a most excellent kind, and wears well.

The short road between the Bacon Art and Library building and the Audubon-Street bridge, has been subjected to very heavy travel for two years, and is still in good condition. Our macadamized roads would last for many years if they could be sprinkled during the dry season. Allston Way will be graded and macadamized by the first of October, 1890.

Sidewalks.

The gravel sidewalks are in good condition, while the old plank walks are rapidly breaking up. The proposed walks of stone, concrete, or bituminous rock, will be built during the fall of the current year.

A new walk will be needed along the south side of the gravel road from the Library building to Audubon-Street bridge.

Ball and Drill Grounds.

Several surveys of that portion of the grounds, commonly known as the Campus, have been made, but none of them have proved satisfactory.

The Board has approved of the proposition to level the Campus, but nothing will be done until all the parties interested shall have agreed as to the plans.

Bridges.

The two new bridges, for which appropriations have been made, have not been built.

The water in Strawberry Creek is still abundant, making it expensive to lay brick foundations. It is believed that it will be more economical to wait until the water of the creek drains off.

Strawberry Creek.

During the winter of 1889 and 1890, the rainfall was very heavy, and the debris from the mountains was carried down into the bed of the creek in the lower grounds, making it necessary to clean out a considerable portion of the creek bed.

The pollution arising from the overflow of manure from the dairies in Strawberry Valley has caused considerable inconvenience. The largest dairy of that section has been removed, and we may hope to escape a similar affliction during the coming winter.

The broken culvert crossing Oxford Street, at the west end of the grounds, has been repaired.

We have found it impossible to find stone of the proper size and quality for the construction of dams, and will be compelled to use broken rock and cement. This will add to the expense, as this kind of work cannot be well done for less than \$12 per cubic yard.

The water in the creek will probably continue to interfere with this work during the entire summer, thereby making it more expensive than we expected. It is therefore deemed expedient to delay the building of dams until the water in the creek drains off.

Forests.

The oak trees on the north side of the grounds have been trimmed, and now all the forests are in a clean and healthy condition.

About eighty acres of steep hillside land should be covered with trees.

The young native oaks have been cared for, and in time will give us good forests. In the meantime, the old oaks will gradually decay.

Shrubbery.

The rooted shrubbery is doing well; nothing, however, can be added to what we have without water to keep the plants alive for a few summers.

Lawns.

We have now fifteen acres of perennial grass, which looks exceedingly well for eight months of the year, and very dreary for the remaining four months. With a sufficient supply of water these lawns would be green all the year.

Sewers.

The sewers are doing their work well. A new sewer of about six hundred and thirty feet in length will be needed to connect the new Chemical Laboratory with the main sewer. There are three cesspools for the use of the cottages on Strawberry Creek. These cottages cannot be easily connected with the main sewer.

Water Supply.

Our water supply is still inadequate to the wants of the University.

During the past year we have used the water of the Alameda Water Company only during the time that the water of Strawberry Creek was polluted by the mountain dairy.

Our supply has come from the tunnel and the old reservoir.

We use only about one half of the water that flows into the old reservoir, the remainder flowing over.

The reason is obvious, and is found in the fact that the delivery pipes are too small to carry the whole amount of water.

About fifty wells have been sunk during the present summer, with a varying depth of from fifty to seventy-five feet.

Thus far these wells have developed but little water.

It is deemed advisable to sink one or two deep wells—artesian—in the lower end of the grounds.

One reservoir at least is needed.

It is now quite certain that the Alameda Water Company cannot supply us with an amount of water that would be practically useful on the grounds.

Buildings.

The University buildings have been put in good repair, and are being painted. All of them will be painted or oiled by the first of September.

The new Chemical Laboratory is being rapidly and well built. It will be finished about the first of October, 1890.

Amount of material used in the construction of new Chemical Laboratory, Berkeley, up to June 23, 1890:

- 1,250 linear feet terracotta.
- 550 linear feet granite.
- 2,500 linear feet flue lining.
- 2,200 linear feet sewer pipe.
- 2,500 linear feet lead pipe.
- 3,200 linear feet gas pipe.
- 2,800 linear feet galvanized iron pipe.
- 1,050 barrels of lime.
- 400 barrels of cement.
- 200 M. lumber.
- 1,150 M. brick.
- 960 tons sand and gravel.
- 12,500 square feet slate roof (California slate).
- 11,200 square feet tin roof.
- 3,300 square feet copper gutters, valleys, flushings, etc.
- 140,000 laths.
- 8,000 pounds rolled iron beams, bonds, anchors, etc.
- 500 linear feet speaking tube.
- 5,000 yards excavating and filling.
- 11,300 square feet cement floor.
- 7,500 square feet plastering.
- 2,295 days' labor to date.
- 4,585 tons of material used.
- The building covers an area of 23,256 feet (surface feet).

The following is a list of buildings much needed:

1. A dressing house near the cinder track.
2. A shed for wagons and hay.
3. An administration building.
4. A museum.

APPENDIX.

The following matters will be found in the addenda to the report:

1. Land Agent's report.
2. Donations to the library.
3. Bill for the more complete endowment and support of the colleges for the benefit of agriculture and the mechanic arts, etc.
4. Geological Survey material.
5. Lick Astronomical Department.
6. Supreme Court decision, Aurelia Pfeiffer vs. The Regents of the University of California.

The following statements will be found in the Financial Appendix:

1. Statement of receipts and disbursements.
2. Trial balance for the month of June, 1890.
3. Statement of bonds and mortgages.
4. Account with the University Fund 1-cent tax.
5. Condition of University Medal Fund.
6. Condition of Edward Tompkins Endowment Fund.
7. Salaries.
8. Fuel.
9. Equipment and repairs.
10. Advertising and printing.
11. Telegraphing and expressage.
12. Stationery.
13. Postage.
14. Land administration.
15. Incidental expenses.
16. College celebrations.
17. Official and lecturing expenses.
18. Cottage repairs.
19. Insurance.
20. Water supply.
21. Agricultural Experiment Stations.
22. College of Agriculture.
23. College of Chemistry.
24. College of Civil Engineering.
25. College of Mechanics.
26. College of Mines.
27. Department of Lick Observatory.
28. Military Department.
29. Department of Mineralogy.
30. Department of Physics.
31. Department of Physical Culture.
32. Library.
33. Reese Library.
34. German Library.
35. Museum.
36. University site improvements.
37. University Printing Office.

Respectfully submitted.

J. H. C. BONTÉ,
Secretary.

CONGRESSIONAL LAND GRANT OF 150,000 ACRES—REPORT OF THE LAND AGENT.

To the honorable the Board of Regents of the University of California:

GENTLEMEN: I have the honor to submit the report of the Land Agent for the year ending June 30, 1890:

RECEIPTS FOR THE FISCAL YEAR ENDING JUNE 30, 1890.

From sales of the grant of 150,000 acres	\$28,214 90
From interest on deferred payments due the grant of 150,000 acres	4,034 34
From interest on deferred payments of forfeited Seminary lands	22 59
From collections of \$1 25 per acre due the United States on double minimum land	1,360 66
From fees for applications, certificates of purchase, and patents	1,063 00
From fees due Secretary of State for affixing seal to patents	244 00
Total cash receipts	<u>\$34,939 49</u>

Number acres for which certificates of purchase have been issued during the fiscal year ending June 30, 1890	929.34
Number acres patented, minimum, during the fiscal year ending June 30, 1890	18,068.77
Number acres patented, double minimum, during the fiscal year ending June 30, 1890	1,765.32

ACCOUNT WITH THE CONGRESSIONAL LAND GRANT OF 150,000 ACRES.

Whole number of acres patented, minimum, to June 30, 1889	61,448.86
Whole number of acres patented, double minimum, to June 30, 1889	44,945.03
Total number acres patented to June 30, 1889	106,393.89
Whole number acres patented, minimum, from June 30, 1889, to June 30, 1890	18,068.77
Whole number acres patented, double minimum, from June 30, 1889, to June 30, 1890	1,765.32
Total number acres patented to June 30, 1890	126,227.98
Whole number acres bearing interest	11,447.04
Whole number acres, full paid, awaiting patents	4,920.51
Whole number acres, full paid, patent fees delinquent	560.00
Approvals, certificate of purchase not issued	900.00
Sold and patented by State Register	204.78
Remaining unsold (abandoned)	5,658.98
Total number acres listed to the grant of 150,000 acres	<u>149,919.29</u>
Selections awaiting action at Washington	<u>299.48</u>
Total amount of principal outstanding of the grant of 150,000 acres	\$42,484 51
Total amount of principal outstanding of forfeited Seminary land	320 00
Total	<u>\$42,804 51</u>
In hands of counsel J. B. Mhoon for collection (delinquent)	13,906 73
Balance not yet delinquent	<u>\$28,897 78</u>

SEMINARY AND PUBLIC BUILDING LAND GRANTS.

The records of the Land Office of the University show the following number of acres listed against the Seminary and Public Building Land Grants:

Seminary Lands.

Marysville district.....	25,945.18
Sacramento district (536.09 acres sold, not listed).....	400.00
Visalia district (320 acres sold, not listed).....	640.00
Humboldt district (2,000 acres sold, not listed).....	6,602.36
Humboldt district (480 acres forfeited to the Regents, not listed).....	
San Francisco district (1,924.66 acres sold, not listed).....	1,724.51
Total listed.....	40,432.05
Sold, but not listed.....	5,260.75
	<u>45,692.80</u>

Total number acres of grant, 46,080; leaving yet to be applied for, 387.20 acres.

Public Building Lands.

Humboldt district.....	1,283.80
Visalia district.....	1,294.24
Stockton district (640.78 acres sold, not listed).....	1,582.85
San Francisco district (320 acres sold, not listed).....	none.
Marysville district.....	800.00
Total listed.....	4,960.89
Sold, but not listed.....	960.78
	<u>5,921.67</u>

Total number acres of grant, 6,400; leaving yet to be applied for, 478.33 acres.

Statement of Forfeited Seminary Land patents issued by the University of California from April 29, 1872, to June 30, 1890:

Date of Patent.	Number of Patent.	Number of Location.	NAME OF PATENTEE.	Area.
1880—Aug. 23..	163	3	Francis L. Whitney	320
1882—Sept. 13..	300		Robert Gardner	320
1885—Jan. 27..	391	10	Henry Fiock	160
1885—Aug. 28..	419	11	George Champlin	80
1886—April 28..	458	13	Charles W. Pierce	56.07
1887—June 29..	496	4	Mrs. E. J. Atkinson	320
1889—Sept. 17..	600	8	James H. Wilson and Warren Moore, assignees of Andrew Corbett.....	160
			Total	<u>1,416.07</u>

STATEMENT OF DELINQUENT PURCHASERS OF LAND UNDER THE CONGRESSIONAL GRANT OF 150,000 ACRES.

Number of Location.	NAME OF PURCHASER.	Amount of Principal.	Date when Delinquent.	Years Interest is Delinquent.	Amount of Interest.
1611	Jeremiah Casey	\$320 00	May 2, 1888	1886, 1887, 1888, 1889, 1890	\$112 00
1418	Matthew Ward, assignee of Michael Joyce	320 00	May 13, 1887	1889, 1890	44 80
1363	A. Kiser	160 00	Mar. 1, 1890	1886, 1887, 1888, 1889, 1890	56 00
1461	S. M. Dihel and S. D. Paxton	640 00	Mar. 6, 1887	1886, 1887, 1888, 1889, 1890	224 00
1700	Samuel D. Paxton	160 00	May 17, 1888	1886, 1887, 1888, 1889, 1890	56 00
1680	K. H. Golden	160 00	June 1, 1888	1888, 1889, 1890	33 60
1477	C. H. English, assignee of G. W. Heald	160 00	May 2, 1888	1885, 1886, 1887, 1888, 1889, 1890	67 20
1479	C. H. English, assignee of G. W. Heald	160 00	May 2, 1888	1885, 1886, 1887, 1888, 1889, 1890	67 20
1733	James Hopkins, assignee of R. McGarvey	160 00	Sept. 6, 1888	1887, 1888, 1889, 1890	44 80
1734	James Hopkins, assignee of R. McGarvey	160 00	Sept. 6, 1888	1887, 1888, 1889, 1890	44 80
419	Charles Faulkner, assignee of F. C. Graves	720 00	Mar. 8, 1891	1889, 1890	100 80
518	Robert R. Harris	320 00	Feb. 27, 1888	1889, 1890	44 80
576	Robert R. Harris	160 00	Feb. 27, 1888	1889, 1890	22 40
663	Robert R. Harris	320 00	Feb. 27, 1888	1889, 1890	44 80
1672	William Clark	160 00	Sept. 6, 1888	1884, 1885, 1886, 1887, 1888, 1889, 1890	112 00
1738	Charles H. Yates	191 68	Oct. 22, 1889	1889, 1890	26 84
1716	R. G. Enbank	160 00	May 23, 1888	1887, 1888, 1889, 1890	44 80
420	F. C. Graves	200 00	Jan. 29, 1890	1887, 1888, 1889, 1890	80 00
1414	Volney Cushing	160 00	Feb. —, 1885	1886, 1887, 1888, 1889, 1890	56 00
1597	Volney Cushing	160 00	May 7, 1888	1886, 1887, 1888, 1889, 1890	56 00
1554	Henry B. Old	160 00	Sept. 2, 1889	1889, 1890	20 92
710	Daniel McGanny, assignee of John Brady	240 00	Mar. 1, 1890	1885, 1886, 1887, 1888, 1889, 1890	100 80
1809	J. H. and Duncan McNee, assignees of Thomas W. Moore	1,595 04	Mar. 1, 1890	1886, 1887, 1888, 1889, 1890	558 25
1810	J. H. and Duncan McNee, assignees of Thomas W. Moore	326 60	Mar. 1, 1890	1886, 1887, 1888, 1889, 1890	114 30
1798	T. H. French	160 00	Mar. 1, 1890	1887, 1888, 1889, 1890	44 80
1300	James Lynch	160 00	July 3, 1889	1889, 1890	16 80
1301	James Lynch	160 00	July 3, 1889	1889, 1890	16 80
1302	James Lynch	480 00	July 3, 1889	1889, 1890	50 40
1303	James Lynch	160 00	July 3, 1889	1889, 1890	16 80
1267	James Lynch	2,083 76	July 3, 1889	1889, 1890	218 79
1378	James Lynch	640 00	July 3, 1889	1889, 1890	67 20
1299	James Lynch	160 00	July 3, 1889	1889, 1890	16 80
1590	James K. Lynch	515 32	April 1, 1888	1889, 1890	54 12
1629	James K. Lynch	189 09	April 1, 1888	1889, 1890	19 83

1745	James K. Lynch	160 00	April 1, 1888	1889, 1890	16 80
1769	James K. Lynch	160 00	Mar. 1, 1890	1889, 1890	16 80
1770	James K. Lynch	165 24	Mar. 1, 1890	1889, 1890	17 34
1771	James K. Lynch	160 00	Mar. 1, 1890	1889, 1890	16 80
1721	C. H. English	320 00	May 26, 1893	1888, 1889, 1890	58 17
1787	A. A. Wheeler	800 00	Mar. 1, 1890	1890	56 00
1788	A. A. Wheeler	160 00	Mar. 1, 1890	1890	11 20
1789	A. A. Wheeler				
1790	N. K. Masten				
	Totals	\$13,906 73			\$2,848 56

STATEMENT OF LANDS LISTED AND CHARGED AGAINST THE AGRICULTURAL
GRANT OF 150,000 ACRES, TO JUNE 30, 1890.

DISTRICTS.	Number of Lists.	Number of Acres.	
San Francisco	1, Minimum	2,085.82	
San Francisco	2, Minimum	1,582.73	
San Francisco	3, Minimum	3,189.68	
San Francisco	4, Minimum	2,198.70	
San Francisco	5, Minimum	3,680.37	
San Francisco	6, Minimum	1,041.05	
San Francisco	7, Minimum	7,082.18	
San Francisco	8, Minimum	400.00	
San Francisco	9, Minimum	160.00	
San Francisco	10, Minimum	3,367.64	
San Francisco	11, Minimum	719.88	
San Francisco	12, Minimum	416.71	
San Francisco	13, Minimum	1,201.87	
San Francisco	14, Minimum	117.38	
San Francisco	15, Minimum	360.00	
San Francisco	1, Double Minimum	9,628.64	
San Francisco	2, Double Minimum	1,466.20	
San Francisco	3, Double Minimum	226.73	
San Francisco	4, Double Minimum	3,094.61	
San Francisco	5, Double Minimum	1,797.25	
San Francisco	6, Double Minimum	4,214.62	
San Francisco	7, Double Minimum	240.00	
San Francisco	8, Double Minimum	80.00	
San Francisco	9, Double Minimum	2,225.98	
San Francisco	10, Double Minimum	120.00	
San Francisco	13, Double Minimum	1,906.35	
San Francisco	14A, Double Minimum	44.17	
San Francisco	14B, Double Minimum	120.00	
San Francisco	15C, Minimum	860.82	
			53,629.38
Sacramento	2, Minimum	160.00	
Sacramento	3, Minimum	560.00	
Sacramento	4, Minimum	680.00	
Sacramento	5, Minimum	1,040.00	
Sacramento	7, Minimum	40.00	
Sacramento	8, Minimum	160.00	
Sacramento	3, Double Minimum	2,479.60	
Sacramento	5, Double Minimum	1,000.46	
Sacramento	6, Double Minimum	240.00	
Sacramento	8, Double Minimum	80.00	
Sacramento	9, Double Minimum	40.00	
Sacramento	10, Double Minimum	40.00	
			6,520.06
Los Angeles	1, Minimum	2,081.49	
Los Angeles	2, Minimum	160.00	
Los Angeles	3, Minimum	80.00	
Los Angeles	4, Minimum	323.34	
Los Angeles	5, Minimum	160.00	
Los Angeles	6, Minimum	120.00	
Los Angeles	7, Minimum	1,626.61	
Los Angeles	8, Minimum	1,459.33	
Los Angeles	1, Double Minimum	840.00	
Los Angeles	3, Double Minimum	1,001.81	
Los Angeles	3, Double Minimum	520.00	
Los Angeles	4, Double Minimum	171.54	
Los Angeles	9C, Double Minimum	360.00	
			8,904.12
Stockton	1, Minimum	2,320.00	
Stockton	2, Minimum	1,500.18	
Stockton	3, Minimum	4,545.89	
Stockton	4, Minimum	440.00	
Stockton	5, Minimum	160.00	
Stockton	6, Minimum	80.00	
Stockton	7, Minimum	40.00	
Stockton	4, Double Minimum	324.23	
Stockton	6, Double Minimum	40.00	
Stockton	7, Double Minimum	170.53	
			9,620.83

STATEMENT OF LANDS LISTED, ETC.—Continued.

DISTRICTS.	Number of Lists.	Number of Acres.	
Humboldt	1, Minimum	2,720.00	13,679.22
Humboldt	2, Minimum	6,879.22	
Humboldt	3, Minimum	5,960.00	
Humboldt	4, Minimum	120.00	
Shasta	1, Minimum	10,975.10	17,337.25
Shasta	6, Minimum	40.00	
Shasta	1, Double Minimum	2,364.00	
Shasta	2, Double Minimum	2,669.83	
Shasta	3, Double Minimum	1,248.32	12,662.10
Shasta	5, Double Minimum	40.00	
Visalia	1, Minimum	1,001.25	
Visalia	2, Minimum	960.00	
Visalia	3, Minimum	1,890.00	22,988.15
Visalia	4, Minimum	401.60	
Visalia	6, Minimum	324.08	
Visalia	1, Double Minimum	2,773.11	
Visalia	2, Double Minimum	3,217.20	1,217.53
Visalia	3, Double Minimum	1,693.46	
Visalia	4, Double Minimum	241.40	
Visalia	5, Double Minimum	80.00	
Visalia	6, Double Minimum	80.00	1,440.00
Marysville	1, Minimum	2,400.00	
Marysville	2, Minimum	1,841.85	
Marysville	3, Minimum	280.00	
Marysville	4, Minimum	245.80	1,920.65
Marysville	5, Minimum	1,016.87	
Marysville	6, Minimum	280.00	
Marysville	7, Minimum	160.00	
Marysville	1, Double Minimum	4,312.96	149,919.29
Marysville	2, Double Minimum	10,889.94	
Marysville	3, Double Minimum	680.73	
Marysville	4, Double Minimum	280.00	
Marysville	5, Double Minimum	240.00	
Marysville	6, Double Minimum	40.00	
Marysville	8, Double Minimum	320.00	
Susanville	1, Minimum	480.00	
Susanville	2, Minimum	537.53	
Susanville	3, Minimum	40.00	
Susanville	4, Minimum	80.00	
Susanville	5, Minimum	40.00	
Susanville	2, Double Minimum	40.00	
Bodie	1, Minimum	80.00	
Independence	2, Minimum	1,360.00	
Aurora	1, Minimum	1,920.65	
Making a grand total of			
			149,919.29

UNIVERSITY LANDS REMAINING UNSOLD JUNE 30, 1890.

Location.	Description.	Section.	Township.	Range.	Area.	County.	Meridian.
1105	E. $\frac{1}{2}$ of S.E. $\frac{1}{4}$ —N.W. $\frac{1}{4}$ of S.E. $\frac{1}{4}$ —N.E. $\frac{1}{4}$ of S.W. $\frac{1}{4}$	22	24 S.	16 E.	160.00	Monterey	Mount Diablo.
1106	S.E. $\frac{1}{4}$ of N.E. $\frac{1}{4}$	10	24 S.	16 E.	40.00	Monterey	Mount Diablo.
1107	W. $\frac{1}{2}$ of N.W. $\frac{1}{4}$	26	24 S.	16 E.	80.00	Monterey	Mount Diablo.
707	S.E. $\frac{1}{4}$ of N.W. $\frac{1}{4}$	29	14 N.	16 W.	40.00	Mendocino	Mount Diablo.
1337	W. $\frac{1}{2}$ of Lot 5.	3	12 N.	12 W.	40.00	Mendocino	Mount Diablo.
1020	N.W. $\frac{1}{4}$ of S.E. $\frac{1}{4}$	22	14 N.	16 W.	40.00	Mendocino	Mount Diablo.
1473	S.E. $\frac{1}{4}$ of S.W. $\frac{1}{4}$	22	13 W.	13 W.	40.00	Mendocino	Mount Diablo.
1391	W. $\frac{1}{2}$ of N.E. $\frac{1}{4}$	20	8 S.	4 W.	80.00	San Mateo	Mount Diablo.
975	Lot 3 and 4	4	14 S.	7 E.	80.60	San Benito	Mount Diablo.
486	S.W. $\frac{1}{4}$ —S.E. $\frac{1}{4}$ of N.W. $\frac{1}{4}$ —S.W. $\frac{1}{4}$ of N.E. $\frac{1}{4}$	9	14 S.	25 E.	240.00	Fresno	Mount Diablo.
797	N. $\frac{1}{2}$ of S.E. $\frac{1}{4}$	28	24 S.	17 E.	80.00	Tulare	Mount Diablo.
22	W. $\frac{1}{2}$	14	11 N.	21 W.	320.00	Kern	San Bernardino.
22	N.W. $\frac{1}{4}$	18	11 N.	21 W.	160.69	Kern	San Bernardino.
22	All of Section.	22	11 N.	21 W.	640.00	Kern	San Bernardino.
22	All of Section.	24	11 N.	20 W.	20 W.	Kern	San Bernardino.
847	N.E. $\frac{1}{4}$ of N.W. $\frac{1}{4}$	28	26 S.	17 E.	40.00	Kern	Mount Diablo.
788	W. $\frac{1}{2}$	6	11 N.	21 W.	320.80	Kern	San Bernardino.
1030	N.E. $\frac{1}{4}$ of N.E. $\frac{1}{4}$	4	25 S.	17 E.	41.60	Kern	Mount Diablo.
1280	S.E. $\frac{1}{4}$	13	12 N.	17 E.	160.00	El Dorado	Mount Diablo.
1280	S. $\frac{1}{2}$ —N.E. $\frac{1}{4}$ —E. $\frac{1}{4}$ of N.W. $\frac{1}{4}$	24	12 N.	17 E.	560.00	El Dorado	Mount Diablo.
1280	S.E. $\frac{1}{4}$ —E. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ —W. $\frac{1}{2}$ of N.W. $\frac{1}{4}$	25	12 N.	17 E.	320.00	El Dorado	Mount Diablo.
1466	S.E. $\frac{1}{4}$ of S.W. $\frac{1}{4}$	2	9 N.	11 E.	40.00	El Dorado	Mount Diablo.
1467	N.W. $\frac{1}{4}$ of N.W. $\frac{1}{4}$	2	9 N.	11 E.	40.00	El Dorado	Mount Diablo.
1467	E. $\frac{1}{2}$ of N.E. $\frac{1}{4}$ —S.W. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ —E. $\frac{1}{2}$ of N.W. $\frac{1}{4}$ —S.W. $\frac{1}{4}$ of N.W. $\frac{1}{4}$	11	9 N.	11 E.	40.00	El Dorado	Mount Diablo.
1467	N.W. $\frac{1}{4}$ of S.W. $\frac{1}{4}$	10	9 N.	11 E.	280.00	El Dorado	Mount Diablo.
1467	S.E. $\frac{1}{4}$ of N.E. $\frac{1}{4}$ —E. $\frac{1}{2}$ of S.E. $\frac{1}{4}$	9	9 N.	11 E.	120.00	El Dorado	Mount Diablo.
1468	E. $\frac{1}{2}$ of S.E. $\frac{1}{4}$	2	9 N.	11 E.	80.00	El Dorado	Mount Diablo.
1468	N. $\frac{1}{2}$ of N.E. $\frac{1}{4}$ —S.E. $\frac{1}{4}$ of N.E. $\frac{1}{4}$	11	9 N.	11 E.	120.00	El Dorado	Mount Diablo.
519	S. $\frac{1}{2}$ of S.W. $\frac{1}{4}$	20	14 N.	4 E.	80.00	Yuba	Mount Diablo.
771	N.E. $\frac{1}{4}$ of S.E. $\frac{1}{4}$	24	27 N.	14 E.	40.00	Lassen	Mount Diablo.
222	E. $\frac{1}{2}$	6	28 S.	18 E.	295.29	San Luis Obispo	Mount Diablo.
289	N.E. $\frac{1}{4}$ of S.E. $\frac{1}{4}$ —S.E. $\frac{1}{4}$ of N.E. $\frac{1}{4}$	20	17 N.	12 E.	80.00	Nevada	Mount Diablo.
1728	S.W. $\frac{1}{4}$ of N.E. $\frac{1}{4}$	35	21 S.	42 E.	40.00	Inyo	Mount Diablo.
1729	N.W. $\frac{1}{4}$ of N.W. $\frac{1}{4}$	14	22 S.	42 E.	40.00	Inyo	Mount Diablo.
1472	Lot 7.	6	11 N.	11 W.	40.00	Mendocino	Mount Diablo.
1756	E. $\frac{1}{2}$ of S.W. $\frac{1}{4}$	26	2 N.	3 W.	80.00	Contra Costa	Mount Diablo.
799 $\frac{1}{2}$	N.E. $\frac{1}{4}$ of N.E. $\frac{1}{4}$	25	27 S.	10 E.	40.00	San Luis Obispo	Mount Diablo.

871	N.W. $\frac{1}{4}$ of N.W. $\frac{1}{4}$	5	30 S. 17 N. 17 N.	11 E. 14 W. 14 W.	40.00 40.00 40.00	San Luis Obispo Mendocino Mendocino	Mount Diablo. Mount Diablo. Mount Diablo.
1577	Lot 5	12					
1578	Lot 7	12					
Total number of acres					5,658.98		

STATEMENTS OF PATENTS ISSUED

By the University of California, from April 29, 1872, to June 30, 1890.

Date of Patent.	No. of Patent.	Number of Location.	NAME OF PATENTEE.	Minimum.		Double Minimum.	
				Area Patented.	Area Accepted by State.	Area Patented.	Area Accepted by State.
1872—April 29—	1	201	Isaac Friedlander	2,720.00	2,720.00		
Dec. 30—	2	20	H. H. Warburton	80.00	80.00		
Dec. 30—	3	21	Newton J. D. Sharlizer	120.00	120.00		
1873—Jan. 7—	4	287½	W. W. Hayes, H. Lobliner, and W. R. Palmer, Trustees of Choro Lodge, No. 168, I. O. O. F.				
Jan. 7—	5	104	Joseph M. Wood (canceled)	36.63	40.00		
April 21—	6	296	L. D. Latimer	40.00	40.00		
Aug. 5—	7	104	F. C. Davis	160.00	160.00		
Aug. 5—	8	500	Albert Dibble	30.00	40.00		
Aug. 5—	9	22	Joseph Naphaly	640.00	640.00		
Sept. 22—	10	313	Marlin A. Britton	231.65	240.00		
Sept. 28—	11	179	Patrick Nolan	160.00	160.00		
Sept. 28—	12	180	Patrick Nolan	160.00	160.00		
Sept. 28—	13	302	Patrick Nolan	160.00	160.00		
Oct. 10—	14	862	Joseph A. Carrie	76.60	76.60		
Oct. 19—	15	792	Charles A. Perkins	40.00	40.00		
Nov. 28—	16	343	Jacob McKissick	80.00	80.00		
Dec. 28—	17	374	J. W. Haverstick	160.00	160.00		
Dec. 28—	18	883	David N. Sherburn	160.00	160.00		
Jan. 7—	19	408	Charles Camden and William Magee.			360.00	360.00
Jan. 7—	20	532	John Ellis and Erastus Wagoner			80.00	80.00
Jan. 16—	21	181	Elkan Wasserman	160.00	160.00		
Jan. 19—	22	343	Jacob McKissick (canceled)				
Jan. 19—	23	589, 637, 639, 640, 641, 642	R. G. Byxby	330.00	330.00		
Feb. 3—	24	332	Frederick Clay	280.00	280.00		
Jan. 23—	25	602	Charles F. Potter	40.00	40.00		
Jan. 26—	26	868	A. J. Forrester	39.00	39.00		
Feb. 10—	27	1110	R. G. Flint	40.00	37.35		
Mar. 9—	28	1122	J. P. Andrews	40.00	40.00		
April 22—	29	625, 892	Mendocino Lumber Company	400.00	339.78		
May 11—	30	332	Winford S. Whittaker	41.81	41.81		

July 19.	31	344	Jefferson Walker	640.00	640.00	---
Aug. 3	32	520	Lindsey Carson	40.00	40.00	---
Aug. 3	33	1208	Christopher Nelson	35.10	40.00	---
Aug. 16	34	521, 523	Lindsey Carson	200.00	200.00	54.51
Sept. 24	35	667	W. H. Rogers	---	---	---
Nov. 2	36	298	Andrew Gehringer	219.39	219.39	---
Feb. 2	37	184	Stephen G. Little	160.00	160.00	---
Feb. 2	38	575	Isaac Rambeau (canceled)	---	---	---
Feb. 2	39	103	Lewis Tyron	160.00	160.00	---
Feb. 19	40	952	Albert Dibble	155.74	155.74	40.00
April 14	41	671	Elton W. Root	---	---	---
June 24	42	136	August Hemme	25.00	40.00	---
June 24	43	579	W. W. Hayes	42.00	42.00	---
June 24	44	1294	Silas Coombs	40.00	40.00	---
Aug. 26	45	678	Hosea H. Johnson	80.00	80.00	---
Sept. 7	46	638	Robert G. Bixby	40.00	40.00	---
Oct. 20	47	542	A. B. Forbes	80.00	80.00	---
Dec. 27	48	382	W. McKeynolds	159.08	159.08	---
Jan. 5	49	353	S. A. Gyle	40.00	40.00	---
Feb. 19	50	1173	R. E. Jack	40.00	40.00	---
April 16	51	840	Archives S. Hicks	---	---	76.26
Aug. 13	52	1041	John Harrington	---	---	40.00
Aug. 13	53	291	John Heinlan	---	---	123.65
Aug. 13	54	388	F. R. Farnan	---	---	---
Aug. 15	55	265	C. D. Robinson	---	---	---
Oct. 27	56	438	Alexander Ash	15.32	40.00	40.00
Oct. 27	57	451	A. S. C. Cleek	---	---	160.00
Nov. 12	58	169	B. B. Redding	---	---	---
Dec. 18	59	282	William T. Coleman	16.65	40.00	---
Jan. 18	60	881	S. C. Stoval, assignee of Mary A. Glotzbach	160.00	160.00	---
Jan. 18	61	1039	H. J. Holmes (canceled)	---	---	---
Jan. 18	62	1040	William T. Garratt	40.00	40.00	---
Jan. 18	63	1270	George C. Berry	40.00	40.00	---
Jan. 31	64	964	J. W. Johns	418.82	440.00	---
Jan. 31	65	310, 333	L. M., J. C., and J. L. Harl	80.00	80.00	---
Jan. 31	66	1360	George C. Berry	---	---	---
Jan. 31	67	1142	J. C. Stoval (canceled)	190.70	200.00	---
Feb. 4	68	334, 362	Francis Boardman	---	---	657.49
Feb. 4	69	243, 240, 241	William T. Coleman, assignee of John P. Nelson	---	---	320.00
Feb. 4	70	239	William T. Coleman	---	---	---
Feb. 6	71	1202, 1203, 1204	Commercial and Savings Bank of San José, assignee of Mark Howell	2,000.00	2,000.00	---
Feb. 7	72	---	E. J. Baldwin (canceled)	---	---	---

STATEMENT OF PATENTS ISSUED—Continued.

Date of Patent.	No. of Patent.	Number of Location.	NAME OF PATENTEE.	Minimum.		Double Minimum.	
				Area Patented.	Area Accepted by State.	Area Patented.	Area Accepted by State.
1878—Feb. 9.	73	1089, 1090, 1091, 1092, 1093, 1094, 1095, 1096, 1097, 1098, 1099, 1126, 1127, 1128.	James B. Haggin, assignee of Henry R. Williams and Thomas B. McCauley	1,530.00	1,530.00	4,230.63	4,230.63
Feb. 9.	74	498.	W. W. Hayes (canceled)	546.91	546.91		
Feb. 25.	75	1278, 1281	E. J. Baldwin	400.00	400.00		
Mar. 18.	76	1136.	Joseph Russ	7.20	40.00		
April 6.	77	1177.	R. E. Jack	191.49	191.49		
April 15.	78	1368.	Robert S. Floyd et al., Trustees of James Lick Trust	40.00	40.00		
April 18.	79	1239.	Robert Trait	80.00	80.00		
April 24.	80	373.	Joseph J. Chandon, assignee of J. W. Brim	40.00	40.00		
April 24.	81	652.	Joseph J. Chandon	60.43	60.53		
May 21.	82	1109.	Edward Kruse, assignee of Frederick Helmke	160.00	160.00		
June 17.	83	390.	Lydia M. Carter	80.00	80.00	274.12	280.00
July 11.	84	279, 285	Thomas J. Price	40.00	40.00		
Aug. 21.	85	318.	Peter Murray, assignee of Wm. W. Johnston	280.00	280.00		
Aug. 21.	86	1318.	Joseph Getz	82.32	82.32		
Aug. 29.	87	984, 985	O. W. Merriam, by virtue of a deed signed by Amelia dated January 11, 1878.	160.00	160.00		
Aug. 29.	88	1359.	O. W. Merriam, by virtue of a deed signed by Amelia Burrage, administratrix	40.00	40.00		
Oct. 26.	89	91.	Charles Wood	236.34	236.34		
Oct. 26.	90	1395.	Theodore Leroy	40.61	40.61		
Oct. 30.	91	365.	Alfred Green	68.50	80.00		
Jan. 2.	92	925.	Mark Hubbard, assignee of August Slack	40.00	40.00		
Jan. 2.	93	389.	John Murphy	80.00	80.00		
Feb. 18.	94	1137.	Joseph Russ	5.99	40.00		
Feb. 18.	95	1039.	H. J. Holmes	40.00	40.00		
Mar. 12.	96	564.	James Turnstead	40.00	40.00		
Mar. 12.	97	1009.	Ann Alexander, assignee of William Liptrap	156.30	160.00		
Mar. 12.	98	385, 386	Stephen Reese	80.00	80.00		
Mar. 18.	99	356.	Jackson Hart, assignee of Stephen Cooper	34.10	40.00		
May 29.	100	618.	Thomas Newell, assignee of Robert Nixon			317.19	317.19
June 6.	101	1325.	August Hemme				
June 6.	102	295.	B. F. Langford			40.00	40.00

1879—

June 6	103	769	Richard T. Pope	78.83	78.83
June 6	104	891, 972, 973	M. Brandenstein	520.50	520.50
June 6	105	692	Dunning Gibbons	40.00	40.00
June 6	106	782, 672, 1168	John Tuohy	360.00	360.00
July 1	107	525	L. Godchaux	320.00	320.00
July 1	108	1283	Edward McDonough	40.00	40.00
July 1	109	355	Samuel Danville	160.00	160.00
July 1	110	369	David H. Allen	40.00	40.00
July 1	111	410	D. N. Friesleben	36.82	36.82
July 1	112	418, 511	G. W. Murdock	240.00	240.00
July 1	113	422	Thomas J. Kirkpatrick	480.00	480.00
July 1	114	433	Cynthia E. Sanborn	40.00	40.00
July 1	115	487	M. A. Reager	80.00	80.00
July 1	116	488	C. B. Ashurst	48.00	48.00
July 1	117	500	Thomas M. McClanahan	80.00	80.00
July 1	118	501, 503, 504, 507, 508, 709	William B. Parker and Francis Houghton	1,536.67	1,536.67
July 1	119	529	F. R. Lofton, assignee of Eli Hackett	80.00	80.00
July 1	120	582	E. R. Lowe, assignee of G. W. Hiatt	35.89	35.89
July 1	121	590, 591	Richard M. Sparks	80.00	80.00
July 1	122	924	James L. Wilbur	80.00	80.00
July 1	123	1014	C. P. Berry	80.00	80.00
July 1	124	1035	James H. Street	80.00	80.00
July 1	125	1141	John Finnell, assignee of J. Finnell	80.00	80.00
July 1	126	1474	G. G. Briggs	160.00	160.00
July 1	127	616	Edward Hallett	7.40	7.40
July 2	128	192, 194	Thompson, Patchett, and Grierson, trustees, etc.	321.25	321.25
July 2	129	588	Thompson, Patchett, and Grierson, trustees, etc.	40.00	40.00
July 31	130	653	John T. Herrick	80.00	80.00
Aug. 7	131	1464	W. J. Hildreth	81.32	81.32
Aug. 7	132	986	James Weyand, assignee of W. H. Bias	80.00	80.00
Aug. 13	133	513, 690	C. Burrell, assignee of F. Hutchinson	80.00	80.00
Sept. 2	134	610	William Lewiston, assignee of B. H. Brooks	58.45	58.45
Sept. 19	135	1282	Miller & Lux	160.00	160.00
Oct. 18	136	245	W. T. Coleman, assignee of L. D. Simpson	98.64	98.64
Oct. 21	137	1214, 1291	John M. Neville	120.00	120.00
Oct. 21	138	251	H. Block, assignee of C. C. Bockius	160.00	160.00
Oct. 21	139	824	J. H. Logan	160.00	160.00
Oct. 21	140	592, 793, 794	Gardner, Pugh, and Haddick, assignees of E. Baven	80.00	80.00
Oct. 21	141	1449	Mrs. Allie M. Pearson, assignee of George H. Perrin	40.00	40.00
Oct. 21	142	770	A. L. Huyck	12.22	12.22
Jan. 17	143	597	William McKee	40.00	40.00
Jan. 17	144	535	John Sites	160.00	160.00
Jan. 17	145	581, 907	Julius Weyand	40.00	40.00
Jan. 17	146	1383	Frederick Bohn	80.00	80.00
Jan. 17	147	522	L. Carson, assignee of W. W. Johnston	80.00	80.00

STATEMENT OF PATENTS ISSUED—Continued.

Date of Patent.	No. of Patent.	Number of Location.	NAME OF PATENTEE.	Minimum.		Double Minimum.	
				Area Patented	Area Accepted by State.	Area Patented	Area Accepted by State.
1880—Jan. 17.	148	1111	Jeremiah Morgan			40.00	40.00
Jan. 17.	149	1151	Santa Clara Valley Mill and Lumber Company, assignee of J. M. Wood			40.00	40.00
Jan. 17.	150	1373	Matthew Aaron and Abraham Kiser, assignees of A. A. Burgess	34.21	40.00		
Jan. 17.	151	841, 646, 535, 1002, 1003	Santa Clara Valley Mill and Lumber Company, assignee of W. P. Dougherty	27.41	40.00	402.46	402.46
Jan. 17.	152	307	Charles S. Lohse			40.00	40.00
Jan. 17.	153	372	James Lydon			160.00	160.00
Feb. 9.	154	1129	E. L. Bradley				
Feb. 9.	155	445	Ambrose Lyall			50.86	50.86
Feb. 9.	156	414	Richard McChesny	10.32	40.00		
Feb. 19.	157	1370, 1377	Higgins & Collins, assignees of Wille & Conway	160.00	160.00		
Aug. 23.	158	833	M. Brandenstein, assignee of John Cook	40.00	40.00		
Aug. 23.	159	1181	Alexander Robertson			94.09	94.09
Aug. 23.	160	757	George E. Long, assignee of F. P. Temple			160.00	160.00
Aug. 23.	161	748	Jay Burnap, assignee of Edward S. Armes	2,080.00	2,080.00		
Aug. 23.	162	1332, 1333, 1335, 1336	Lewis Garvey and Edward S. Armes				
Aug. 23.	163	3	Francis L. Whitney (Seminary, 520 acres)	240.00	240.00		
Sept. 4.	164	548, 549	Sarah Margaret Simpson	40.00	40.00		
Sept. 4.	165	1462	Simon B. Pulliam	80.00	80.00		
Oct. 9.	166	1326	Geo. C. Berry			80.00	80.00
Nov. 13.	167	1016, 1016½	James W. Kaseburg			27.98	27.98
Nov. 13.	168	1385	Joseph Thompson			429.40	429.40
Nov. 13.	169	406, 407	Henry C. Wilson				
Nov. 13.	170	541	P. M. Cleghorn (canceled)				
Nov. 13.	171	593	David Robertson			40.00	40.00
Nov. 13.	172	246	Pacific Mutual Life Insurance Company of California, assignee of Charles G. Bocktus				
Nov. 13.	173	605	Philips Hefner			40.00	40.00
1881—Jan. 17.	174	493	H. S. Graves			80.00	80.00
Jan. 17.	175	515	H. S. Graves			182.00	182.00
Jan. 17.	176	492	H. S. Graves			80.00	80.00
Jan. 17.	177	491	H. S. Graves			80.00	80.00
Jan. 17.	178	544	H. S. Graves			80.00	80.00

Jan. 17	179	551	H. S. Graves	67.76	240.00	67.76	240.00
Jan. 17	180	546	H. S. Graves	240.00	240.00	240.00	240.00
Jan. 17	181	512	J. L. Wilbur	80.00	80.00	80.00	80.00
Jan. 17	182	554	J. L. Wilbur	240.00	240.00	240.00	240.00
Feb. 10	183	1393	Jerome Lincoln, assignee of Siven Alstrom	40.00	40.00	40.00	40.00
Feb. 10	184	1480	Qualala Mill Company, assignee of Benj. F. Warren	40.00	40.00	40.00	40.00
Feb. 10	185	1382	Clear Lake Waterworks, assignee of John Bensley	159.71	159.71	159.71	159.71
Feb. 17	186	1311	Calvin S. Kelley	40.00	40.00	40.00	40.00
Feb. 17	187	1463	Horatio P. Livermore	40.00	40.00	40.00	40.00
Feb. 17	188	1194, 1195, 1196	Geo. T. Hawley, assignee of Wm. H. Van Arsdale	720.00	720.00	720.00	720.00
Feb. 17	189	1193	Geo. T. Hawley, assignee of Wm. H. Van Arsdale	640.00	640.00	640.00	640.00
Feb. 24	190	1374	Thomas Mathews	40.00	40.00	40.00	40.00
Mar. 5	191	1481	Thomas Lynch	40.00	40.00	40.00	40.00
Mar. 5	192	1367	Robert G. Bixby	285.27	285.27	285.27	285.27
Mar. 12	193	1470, 1471	Calvin S. Kelley and David T. Farnsworth, assignees of Robert Shearer	120.00	120.00	120.00	120.00
Mar. 12	194	953	J. W. Potts, assignee of L. Brooks	80.00	80.00	80.00	80.00
Mar. 12	195	966, 967	E. H. Duncan, assignee of Louis Harbers	120.00	120.00	120.00	120.00
Mar. 17	196	1438	William P. English	48.21	48.21	48.21	48.21
Mar. 17	197	608	Lauchlin McDonald	80.00	80.00	80.00	80.00
Mar. 24	198	858, 1006	Henry Hutchinson, assignee of Salena G. Truett	366.33	366.33	366.33	366.33
Mar. 28	199	798	Isaac A. Cooper	40.00	40.00	40.00	40.00
Mar. 28	200	725	Henry Miller and C. Lux, assignees of Martin and J. Luther	22.32	22.32	22.32	22.32
Mar. 28	201	1272, 1273, 1274, 1275, 1276, 1277	Miller & Lux, assignees of C. Lux	159.25	159.25	159.25	159.25
Mar. 28	202	1287	Miller & Lux, assignees of C. Lux	588.62	588.62	588.62	588.62
Mar. 29	203	950	Jeremiah Rees	47.69	47.69	47.69	47.69
April 7	204	1338	N. W. Chittenden	52.15	52.15	52.15	52.15
April 7	205	1358	Hiram Briggs	47.09	47.09	47.09	47.09
April 7	206	1413	James H. Laughlin	40.00	40.00	40.00	40.00
April 7	207	1433, 1434	Hiram Briggs	80.00	80.00	80.00	80.00
April 7	208	1102	Connolly Conn, assignee of Duncan McNeel	40.00	40.00	40.00	40.00
April 16	209	575	Isaac Raubo	80.00	80.00	80.00	80.00
April 19	210	334	John D. Rosenberger	40.00	40.00	40.00	40.00
April 27	211	360	Thomas and Patrick Kelly, assignees of Sam'l B. Martin	40.00	40.00	40.00	40.00
May 7	212	550	J. A. Blasingame, assignee of W. T. Cole	160.00	160.00	160.00	160.00
May 12	213	706	Robert Gordon	40.00	40.00	40.00	40.00
May 14	214		Void				
May 14	215	1424, 1446	J. C. Shoval	240.31	240.31	240.31	240.31
May 14	216	879	Henderson Brown	160.00	160.00	160.00	160.00
May 14	217	336	Warren Bryant, assignee of Jurgen Christensen	40.00	40.00	40.00	40.00
May 14	218		Void				
May 14	219	1314	Peter Turner	40.00	40.00	40.00	40.00
May 14	220	1144	William Cameron	120.00	120.00	120.00	120.00

STATEMENT OF PATENTS ISSUED—Continued.

Date of Patent.	No. of Patent.	Number of Location.	NAME OF PATENTEE.	Minimum.		Double Minimum.	
				Area Patented.	Area Accepted by State.	Area Patented.	Area Accepted by State.
1881—May 14	221	339	José G. Sanchez			40.00	40.00
May 14	222	1139	E. J. Breen			120.00	120.00
May 14	223	1315, 1317	Thomas Turner			80.00	80.00
May 21	224	1008	William A. Brown	80.00	80.00		
May 27	225	768	Frank McOppin, assignee of Thomas C. Van Ness	40.00	40.00		
June 10	226	1340	L. Peres			11.60	40.00
June 21	227	1000, 1390, 1445, 11514	Santa Clara Valley Mill and Lumber Company, assignee of William P. Daugherty and J. M. Wood				
June 22	228	648, 762, 7593, 7603, 7613	Pacific Lumber Company, assignee of Mary E. Butterworth	320.00	320.00		
June 22	229	223, 223½, 225, 226, 229, 230, 232, 235	Pacific Lumber Company, assignee of Mary E. Butterworth	640.22	640.22		
June 22	230	231, 233	Pacific Lumber Company, assignee of Mary E. Butterworth	2,367.40	2,367.40		
June 22	231	234, 237	Pacific Lumber Company, assignee of Mary E. Butterworth	2,172.87	2,491.81		
June 22	232	1375	S. M. Knowles	1,068.77	1,068.77		
June 30	233	317	John Green	40.00	40.00		
June 30	234	1440, 1483, 1484	J. C. Stoval	40.00	40.00		
June 30	235	577, 578	E. Archer, assignee of W. C. Archer	120.00	120.00		
July 1	236	944, 945	Peter C. Van Allen	80.00	80.00		
July 11	237	228	Pacific Lumber Company, assignee of Mary E. Butterworth	80.00	80.00		
July 12	238	904, 907	Milton Mining and Water Company, assignee of S. F. Butterworth	638.18	638.18		
July 12	239	906, 906½, 908, 908½	North Bloomfield Gravel Mining Company, assignee of S. F. Butterworth	480.00	482.56		
July 16	240	1407	James B. Haggin, assignee of Horatio P. Livermore	960.00	960.46	121.40	121.40
July 20	241	624	S. W. Randle, assignee of L. F. Moulton			40.00	40.00
July 20	242	494	Marshall N. Bryan			160.00	160.00
July 20	243	684	Marshall N. Bryan			160.00	160.00
July 20	244	651	Cynthia E. Sanborn			40.00	40.00
July 20	245	679	Jacob W. Babcock			159.81	159.81
July 20	246	565, 566, 567	W. W. Durham			116.91	179.31

Aug. 16.	247	198, 199	Benjamin N. Hartshorn	960.00	960.00	80.00	80.00
Aug. 16.	248	902, 903	Valentine Grant				
Aug. 26.	249	244	Pacific Lumber Company, assignee of Mary E. Butterworth				
Sept. 14.	250	92.	James Ripperdam	613.06	613.06		
Sept. 14.	251	1452	James M. Lea	160.00	160.00		
Sept. 17.	252	427	Jasper Harrell	40.00	40.00		
Sept. 28.	253	1807	Jasper Harrell	40.00	40.00	110.00	110.00
Oct. 12.	254	930	E. C. Dunning, assignee of Owen Wright			80.00	80.00
Oct. 12.	255	1230	J. Murietta, assignee of E. de Clairmont	80.00	80.00		
Oct. 19.	256	1388, 1389	P. N. Emerson	80.00	80.00		
Nov. 2	257	452	Frederick Tarke			160.00	160.00
Dec. 17.	258	1178	John H. Wise and Thomas Dunnigan, assignees of Joseph Carter	40.00	40.00		
Dec. 17.	259	670, 685, 686, 687	Thomas H. Howell			325.20	325.20
Jan. 13.	260	221	George A. Lamont, assignee of J. M. Wood	79.69	79.69		
Jan. 21.	261	1478	John F. Todd and Robert Gibson, assignees of G. W. Heald				
Jan. 21.	262	1223	Heirs of G. W. Owen, deceased	39.54	40.00		
Jan. 21.	263	711	Heirs of James P. Smith, deceased	80.00	80.00		
Jan. 21.	264	767	H. C. Wilson	33.30	40.00	711.78	711.78
Jan. 26.	265	906	J. H. Logan				
Feb. 10.	266	1348	Joseph Korbell, assignee of C. C. Hunger	127.51	127.51		
Feb. 16.	267	1075, 1076, 1078	W. F. Peabody	40.00	40.00		
Feb. 16.	268	1072	Edmund Jones				
Feb. 17.	269	1026	John D. Rosenberger				
Feb. 28.	270	1293	J. A. Staller, assignee of S. Morton	40.93	40.93		
Mar. 9	271	264	L. Lamberton	12.23	40.00		
Mar. 16.	272	172	John T. Jones	640.00	640.00		
Mar. 16.	273	1419	W. S. Bayton, assignee of J. W. Slater	40.00	40.00		
May 16	274	1439	Walker & Menzies, assignees of G. Butchart	80.00	80.00		
May 17.	275	557	Charles Crocker, assignee of C. H. Huffman	40.00	40.00		
May 31.	276	655, 656, 657, 658	J. H. McNee, assignee of W. W. Johnston			640.00	640.00
June 17.	277	905	Thomas W. Moore	88.00	80.00	106.84	106.84
June 17.	278	377	John Harford			17.51	40.00
June 17.	279	1347	Charles Crocker	240.00	240.00		
June 17.	280	331	R. E. Jack	120.00	120.00		
June 17.	281	1031	R. E. Jack	219.58	219.58		
June 17.	282	1180	R. G. Rowley			40.00	40.00
July 20.	283	596	Luther W. Phillips (canceled)				
July 20.	284		L. Godchaux			1,241.28	1,241.28
July 20.	285	524, 525	M. Brandenstein			772.95	772.95
July 20.	286	424	M. Brandenstein and L. Godchaux, assignees of M. J. Luther				
July 20.	287	744				120.00	120.00

STATEMENT OF PATENTS ISSUED—Continued.

Date of Patent.	No. of Patent.	Number of Location.	NAME OF PATENTEE.	Minimum.		Double Minimum.	
				Area Patented.	Area Accepted by State.	Area Patented.	Area Accepted by State.
1882—July 20—	288	589	E. R. Lowe, assignee of G. M. Hiatt.			120.00	120.00
July 28—	289	955	Hugh A. Logan.	80.00	80.00		
July 28—	290	795, 943	Cynthia E. Sanborn.			120.00	120.00
July 28—	291	825	J. B. Randol, assignee of Frederick Crichton.			40.00	40.00
July 28—	292	1331, 1334	Alicia M. Berry, assignee of George C. Berry.	630.00	630.00		
July 28—	293	789	J. B. Haggin, assignee of Martin White and W. B. Carr.			40.00	40.00
July 28—	294	1435	Isaac Matby.			80.00	80.00
Aug. 8—	295	649	William Moran.			80.00	80.00
Aug. 8—	296	1417	Euno F. Blohm.			40.00	40.00
Sept. 6—	297	1616	R. H. McDonald.	40.00	40.00		
Sept. 6—	298	800, 837	John Reynolds.			80.00	80.00
Sept. 6—	299	730, 977	W. H. Bias, assignee of J. L. Garrett, the latter assignee of W. Purdy.	40.63	40.63	61.33	61.33
Sept. 7—	300	Seminary.	Robert Gardner (320 acres).				
Sept. 15—	301	1232	Henry W. Stuben.			40.00	40.00
Oct. 13—	302	803	Alexander Fraser, assignee of Emanuel L. Reed.	120.00	120.00		
Nov. 17—	303	1636	Alfred G. Stoncifer.	80.00	80.00		
Nov. 17—	304	1600, 1601, 1602, 1603, 1604, 1608, 1609, 1610					
Dec. 14—	305	583	Horatio P. Livemore.	320.00	320.00		
Dec. 14—	306	963	Martin A. Reager.			64.52	64.52
Dec. 15—	307	403, 601	Charles W. Creighton.			38.56	40.00
Dec. 15—	308	1593	Herbert Kraft, assignee of John Freeman.			200.00	200.00
Dec. 15—	309	1596	L. J. Cummings.	39.61	40.00		
Jan. 15—	310	1588, 1637, 1638.	Stephen Reese.	40.00	40.00		
Feb. 2—	311	623	J. C. Stoval.	120.00	120.00		
Feb. 2—	312	886	C. Cabot.			12.90	40.00
Feb. 13—	313	713, 714, 749, 872	A. M. Basley.			40.00	40.00
Feb. 13—	314	689	M. N. Bryan.			588.50	588.50
Feb. 14—	315	471	D. K. Zumwalt.			40.00	40.00
Feb. 20—	316	673	John Barry.			160.00	160.00
Feb. 21—	317	541	Los Angeles County Bank, assignee of P. A. Raynor.			480.00	480.00
Feb. 24—	318	562	P. M. Cleghorn.			320.80	320.80
Feb. 24—	319	396	Luther H. Phillips.			47.37	47.37
Mar. 29—	320	824½	C. H. Hall.			80.00	80.00
April 16—	320	824½	J. H. Logan.	160.00	160.00		

April 13.	321	1444	William Hesser.	40.00	40.00	160.00	160.00	160.00	160.00
May 18.	322	570	Bank of California, assignee of Wm. S. Chapman	160.00	160.00	160.00	160.00	160.00	160.00
May 18.	323	1670	William J. Pleasant	160.00	160.00	160.00	160.00	160.00	160.00
June 11.	324	1594, 1696	Charles Stubbs	80.00	80.00	80.00	80.00	80.00	80.00
June 11.	325	1683	Thomas G. Rodgers	40.00	40.00	40.00	40.00	40.00	40.00
June 11.	326	1572	C. J. Beerstecher	160.00	160.00	160.00	160.00	160.00	160.00
June 11.	327	1132	Ed. F. Hamilton	40.00	40.00	40.00	40.00	40.00	40.00
June 11.	328	1580	Heirs of David Rowles	160.00	160.00	160.00	160.00	160.00	160.00
June 19.	329	685, 686, 687, 688, 699, 701, 1192, 1197, 1198, 1199, 1216, 1220, 1222, 702, 776, 783, 949	Jesse D. Carr	836.63	879.04	162.77	162.77	162.77	162.77
June 20.	330	1454, 1455	Sophia Oacy	964.70	964.70	80.00	80.00	80.00	80.00
June 23.	331	404	Charles McLaughlin, assignee of Thomas Hildreth	40.00	40.00	40.00	40.00	40.00	40.00
June 23.	332	951	Samuel Harding	102.65	102.65	40.75	40.75	40.75	40.75
June 26.	333	1056	G. W. Humphrey	279.10	279.10	120.00	120.00	120.00	120.00
June 28.	334	1547	J. S. Brackett	40.00	40.00	40.00	40.00	40.00	40.00
July 2.	335	1550	James M. Hickson	40.00	40.00	40.00	40.00	40.00	40.00
July 5.	336	1565, 1566	Rench Angde	200.00	200.00	40.00	40.00	40.00	40.00
July 6.	337	1289	James W. Humphrey	40.00	40.00	40.00	40.00	40.00	40.00
July 11.	338	1641	William Kennedy	63.65	63.65	240.00	240.00	240.00	240.00
July 14.	339	1907	Michael Pfeifer	40.00	40.00	40.00	40.00	40.00	40.00
July 28.	340	1396	Charles Oppenlander	40.00	40.00	40.00	40.00	40.00	40.00
July 28.	341	1743	William Cantlow	40.00	40.00	40.00	40.00	40.00	40.00
Aug. 7.	342	979, 980	John Sites	40.00	40.00	40.00	40.00	40.00	40.00
Aug. 22.	343	1051, 1052, 1146	John Callahan	39.63	39.63	180.73	180.73	180.73	180.73
Aug. 29.	344	294	Helen Weir, assignee of W. H. Lyons	40.00	40.00	40.00	40.00	40.00	40.00
Sept. 1.	345	1626	H. A. Logan	163.37	163.37	500.00	500.00	500.00	500.00
Sept. 1.	346	1028	H. Perkins, assignee of L. Lineberger	40.00	40.00	40.00	40.00	40.00	40.00
Sept. 14.	347	555, 556	Robert S. Hardin	40.00	40.00	40.00	40.00	40.00	40.00
Sept. 14.	348	961	Elas Jacob	40.00	40.00	40.00	40.00	40.00	40.00
Sept. 24.	349	1575, 1592	Absher E. Maxcy	113.35	113.35	240.00	240.00	240.00	240.00
Sept. 24.	350	357, 358	Sperry & Perry	40.00	40.00	40.00	40.00	40.00	40.00
Sept. 25.	351	643	Dolores Herrera, assignee of J. P. Knapp	40.00	40.00	40.00	40.00	40.00	40.00
Oct. 13.	352	1460	J. W. Gardner	113.35	113.35	240.00	240.00	240.00	240.00
Oct. 26.	353	393	S. B. Emerson	40.00	40.00	40.00	40.00	40.00	40.00
Nov. 3.	354	308	C. T. Elliot, assignee of D. Beaumont	40.00	40.00	40.00	40.00	40.00	40.00
Nov. 5.	355	1356	C. A. Ledford and David Elkins	40.00	40.00	40.00	40.00	40.00	40.00
Nov. 5.	356	717, 717½, 718, 719, 720, 720½, 720½, 721, 721½, 722, 723, 724, 724, 726, 727, 728, 728½, 729, 730, 731, 731½, 732, 733, 734, 735, 736, 736½, 736½, 737, 738, 738½, 739, 740, 740½, 742, 742½, 743, 743½, 746, 834, 836, 887, 889, 959, 960, 1053, 1054, 1055	H. Miller and C. Lux, assignees of James and M. Luther	5,090.17	5,090.17	5,090.17	5,090.17	5,090.17	5,090.17

STATEMENT OF PATENTS ISSUED—Continued.

Date of Patent.	No. of Patent.	Number of Location.	NAME OF PATENTEE.	Minimum.		Double Minimum.	
				Area Patented.	Area Accepted by State.	Area Patented.	Area Accepted by State.
1883—Dec. 12	357	1436	Daniel M. Copsey	80.00	80.00		
1884—Feb. 5	358	1662, 1663	Henry Marden	80.00	80.00		
Feb. 5	359	1711, 1712	Edward Kruse	80.00	80.00		
Feb. 5	360	1645	James D. Rowen	40.00	40.00		
Feb. 5	361	1595	Stephen Reese	40.00	40.00		
Feb. 6	362	1280	W. Hamilton, assignee of P. P. Martin			40.00	40.00
Feb. 6	363	1605	H. F. Farbanks	80.00	80.00		
Feb. 7	364	470, 1237, 1259	George W. Thompson	120.00	120.00		
Feb. 9	365	444	C. W. Clarke, assignee of J. S. Williams			680.00	678.73
Feb. 9	366	1073, 1074	M. C. Clark			130.08	130.08
Feb. 9	367	1186 $\frac{1}{2}$	Jesse D. Carr	120.39	120.39		
Feb. 16	368	1571	G. Statcke			80.00	80.00
Feb. 18	369	1187 $\frac{1}{2}$, 1215, 1217, 1219, 1238	Jesse D. Carr	830.04	830.04		
Mar. 22	370	337	Jungen Christensen			40.00	40.00
Mar. 22	371	1732	Lualten J. Hall	40.00	40.00		
April 4	372	922	P. N. Aaronson and A. Galland, assignees of Edmond Fields				
April 9	373	1500	J. McCausland, assignee of D. W. Walker	40.00	40.00	40.00	40.00
May 13	374	1715	Price A. Jacobs	80.00	80.00		
May 16	375	441	H. V. Hawley, assignee of F. E. Horn			120.00	120.00
June 26	376	536	Jacob Rambo, assignee of F. C. Graves			160.00	160.00
July 9	377	323	J. B. DeJarnatt, assignee of John Cheney	160.00	160.00		
July 21	378	1765	Sarah Ward	46.19	46.19		
Aug. 16	379	1453	James Bryden, assignee of L. B. Ayers			40.00	40.00
Aug. 16	380	1501	James Bryden			120.00	120.00
Sept. 4	381	823	J. H. Logan	80.00	80.00		
Sept. 4	382	1644	J. W. Mastick	51.74	51.74		
Sept. 8	383	1448	J. G. Estudillo and F. Pico, assignees of H. M. Johnson				
Sept. 4	384	569	S. Danville, assignee of S. Danville and J. Hagerty			41.96	41.96
Sept. 15	385	1145	Massey Thomas			154.10	154.10
Dec. 22	386	1703	Charles W. Howard			80.00	80.00
1885—Jan. 14	387	594	G. G. Kimball	40.00	40.00		
Jan. 14	388	1735	Wm. C. Greenleaf, assignee of H. N. Maybe			160.00	160.00
Jan. 27	389	1647	Connolly Conn	36.31	40.00		
				40.00	40.00		

Jan. 27	390	1140	H. P. Eakle, assignee of Charles E. Stewart	160.00	165.80	---
Jan. 27	391	10 (Seminary)	Henry Pock (160 acres)	---	---	---
Mar. 16	392	1152	J. B. Haggis, assignee of James R. Watson	---	80.00	80.00
Mar. 16	393	489	W. B. James	40.00	---	---
Mar. 23	394	384	H. Lewis, assignee of C. W. Rees	---	40.00	40.00
Mar. 23	395	571	Heirs of J. H. Keys, assignees of J. W. Huffaker and T. Brewer	---	---	---
Mar. 23	396	1364	R. F. Martin	---	---	320.00
April 2	397	689	Heirs of David Rowles	---	---	40.00
April 2	398	688	H. K. Boomer	---	---	40.00
April 2	399	677, 974, 1684, 1685, 1686, 1687	J. W. Cooper	418.13	418.13	40.00
April 2	400	1783	J. R. Garner	35.56	40.00	40.00
April 2	401	1779	J. M. McDonald	160.00	160.00	40.00
April 18	402	1364, 1366	Alexander Duncan	230.10	233.80	679.30
April 18	403	956, 957, 1010, 1284, 1285, 1286	S. A. Gyle	320.00	320.00	---
April 24	404	1614	H. Miller and C. Lux, assignees of Jacob Luther	---	---	---
May 15	405	261	V. D. Moody, assignee of A. B. Conley	---	40.00	40.00
May 15	406	848	William Rice, assignee of estate of A. Rupprecht	---	40.00	40.00
May 15	407	93	S. G. Little	---	80.00	80.00
May 21	408	1176	R. E. Jack	---	---	---
May 21	409	538	C. H. Hoffman, assignee of J. D. Hyde	---	79.22	79.22
June 12	410	526, 527, 668	N. Simpson	---	40.00	40.00
June 12	411	1671	A. Kinney	160.00	160.00	40.00
June 12	412	391	R. McHenry	---	---	---
June 23	413	607	W. C. Turner, assignee of W. H. Lyons	40.00	40.00	---
July 2	414	1753	W. H. Mead	27.48	---	---
July 2	415	1762, 1807	William P. Johnson	---	---	40.00
July 30	416	1631	A. W. Von Schmidt	---	---	40.00
Aug. 5	417	780	Hiram Gilmore	80.00	80.00	---
Aug. 5	418	1744	John McA. Brown	40.00	40.00	---
Aug. 28	419	11 (Seminary)	Geo. Champlin (80 acres)	---	---	---
Aug. 26	420	1651	Andrew J. Myers, assignee of F. T. Shirwin	159.97	159.97	---
Sept. 17	421	572	Judah Baker, Jr.	---	---	123.20
Sept. 17	422	784	Martin Griffin	---	---	80.00
Sept. 17	423	252	M. and T. Spence, assignees of Chas. J. Bockius	---	---	80.00
Sept. 17	424	1310	Robert G. Flint	---	---	120.00
Sept. 17	425	620	Jacob Doty, assignee of Frederick Pfiel	---	---	120.00
Oct. 8	426	1021	John Proctor, assignee of Frank Kochler	---	---	40.00
Oct. 8	427	1412	B. V. Sargent	---	---	40.00
Oct. 8	428	1458	John F. Barrie	---	---	80.00
Oct. 14	429	1023	Charles Becker, assignee of Edward A. Belcher	---	---	160.00
Oct. 13	430	361	Carl G. Munich, assignee of Duncan McNee	---	---	80.00
Oct. 26	431	1142	J. C. Stovall, assignee of Mary A. Glotzbach	120.00	120.00	---
Nov. 9	432	1135	Joseph Russ	---	---	---
Dec. 5	433	999	E. M. Ross	120.00	120.00	40.00

STATEMENT OF PATENTS ISSUED—Continued.

Date of Patent.	No. of Patent.	Number of Location.	NAME OF PATENTEE.	Minimum.		Double Minimum.	
				Area Patented.	Area Accepted by State.	Area Patented.	Area Accepted by State.
1885—Dec. 5.	434	1170	John E. Jackson, assignee of E. M. Ross.			80.00	80.80
Dec. 5.	435	1722	The Napa Consolidated Quicksilver Mining Company, assignee of M. G. Rhodes				
Dec. 8.	436	619	Simon Newman	40.00	40.00		
Dec. 22.	437	772	M. J. McGovern, assignee of John McGovern.	55.48	55.48		
Dec. 28.	438	773, 947.	John Boggs			204.09	204.09
Dec. 28.	439	1539.	John Boggs, assignee of M. L. Chandler			40.00	40.00
Dec. 28.	439	476	John Boggs, assignee of M. L. Chandler			160.00	160.00
1886—Jan. 9.	440	453	Morris Goldtree, assignee of Maria Concepcion B. de Munos			320.00	320.00
1886—Dec. 2.	441	1150	Charles L. French, assignee of James K. Lynch	40.00	40.00		
1886—Jan. 5.	442	1552	Henry C. Hawley, assignee of Amos H. Wilbur	40.07	40.07		
Jan. 8.	443	400, 409, 413	Chas. Petit, assignee of G. W. Colby	460.00	560.00		
Jan. 8.	444	1042	David Burns, assignee of G. T. Thornton	40.00	40.00		
Jan. 16.	445	517	David Williams	40.00	40.00		
Jan. 16.	446	1369, 1312	D. O. Daggett, assignee of F. H. Hawley and Charles G. Bockius	321.05	321.05		
Feb. 9.	447	694	Mary Emma Chadbourn, assignee of Henry Baker			80.00	80.00
Feb. 17.	448	1456, 1457	James Clark	80.00	80.00		
Mar. 16.	449	909	William Jopson			80.00	80.00
Mar. 24.	450	1160	Joseph Korbel			46.63	46.63
Mar. 24.	451	1306	David Wooster	40.00	40.00		
April 14.	452	1652	Estate of Simon Zimmerman, deceased	79.88	79.88		
Mar. 30.	453	335	Anthony Maruschi				
April 3.	454	1750, 1754, 1755	Joseph Reynolds	349.57	349.57	83.91	83.91
April 3.	455	1717, 1718	John Reynolds	80.00	80.00		
April 3.	456	1546	John Boggs, assignee of George Champlin			40.00	40.00
April 14.	457	489	Chas. W. Price (56.07 acres)			320.00	320.00
April 28.	458	13 (Seminary)	James Traynor			40.00	40.00
May 17.	459	1131	F. F. Marx	40.00	40.00		
May 17.	460	1710	Estate of Benjamin Flint, deceased				
June 7.	461	606	Estate of Gabriel Little, deceased	40.00	40.00		
June 21.	462	303	The Buena Vista Petroleum Company, assignee of J. O. Lovejoy	40.00	40.00	230.62	230.62
June 21.	463	354, 335		730.00	720.00		

July 22--	464	45, 52, 61	Richard Kinnan and Thomas B. Rickey, assignees of Jesse N. Summers	1,920.65	1,920.65	160.00	160.00
July 24--	465	1523	The South Yuba Water and Mining Company, assignee of E. L. McClure			80.00	80.00
July 24--	466		The South Yuba Water and Mining Company, assignee of E. L. McClure	68.79	68.79		
Aug. 13--	467	543	Walter M. Jeffries, assignee of Nathan Goldtree			80.00	80.00
Aug. 13--	468	1034, 1666	The Northern California Land Company, assignee of W. H. Parks, Jr.			80.00	80.00
Sept. 25--	469		Amendatory of patent 463				
Sept. 25--	470	676	T. M. Eby			80.00	76.13
Sept. 25--	471	1437	S. H. Seymour, assignee of Isaac N. Stapp	80.00	80.00		
Nov. 1--	472	1768	Laughlin McDonald			40.00	40.00
Nov. 30--	473	1562, 1563, 1607	H. A. Logan	119.54	120.00		
Nov. 30--	474	1714	H. A. Logan	40.00	40.00		
Nov. 30--	475	1584, 1585	Wesley Burnett			200.00	200.00
Nov. 30--	476	1767	James Liddle			40.00	40.00
Nov. 30--	477	1795	S. M. Smoot			40.00	40.00
Nov. 30--	478	1625	Edward McDonough			40.00	40.00
Nov. 30--	479	1688	Michael Pfeiffer	40.00	40.00		
Jan. 11--	480	1587, 1627	H. S. McMichael	80.00	80.00		
Jan. 11--	481		Canceled				
Jan. 11--	482	1740	William M. Scott	40.00	40.00		
Feb. 9--	483	1115	Albert Dibble			224.51	224.51
Feb. 9--	484	1117, 1119	Albert Dibble			81.83	88.56
Feb. 9--	485	1120	Albert Dibble			72.69	72.69
Feb. 10--	486	1429, 1430	John H. Fowler	77.13	80.11		
April 2--	487	873, 874, 875	Joseph Russ	2,360.00	2,360.00		
April 2--	488	876, 877, 878, 1133, 1134, 1425	Joseph Russ	1,000.00	1,000.00		
April 2--	489	531	Louis Reed and A. C. Stephenson, assignees of A. C. Stephenson and F. L. Beel			40.00	40.00
April 2--	490	1591	John Reynolds			40.00	40.00
April 2--	491	1409	The Navarro Mill Company, assignee of C. A. McFaul	40.00	40.00		
May 16--	492	958	S. S. Fraser	40.00	40.00		
June 14--	493	1653	William Campbell			40.00	40.00
June 27--	494	411	John Forster, his heirs or assigns				
June 27--	495	412	Francisco P. Forster, his heirs or assigns	1,544.61	1,544.61		
June 29--	496	4 (Seminary)	Mrs. E. J. Atkinson (320 acres)	82.00	82.00		
June 29--	497	290	James Eva, assignee of Benjamin Cuzner			80.00	80.00
June 29--	498	359	M. L. E. Sheplar, assignee of James Hawks	160.00	160.00		
June 29--	499	1664, 1679	John Mears			82.52	82.52
June 29--	500	1657	Kate F. Overton			80.00	80.00
June 29--	501	1598	Samuel J. Miller			40.00	40.00
June 29--	502	1737	James T. Ford			49.02	49.02
June 29--	503	1228	Francis Gibson			40.00	40.00

STATEMENT OF PATENTS ISSUED—Continued.

Date of Patent.	No. of Patent.	Number of Location.	NAME OF PATENTEE.	Minimum.		Double Minimum.	
				Area Patented.	Area Accepted by State.	Area Patented.	Area Accepted by State.
1887—Aug. 22—	504	1581	Geo. Bushby			40.00	40.00
Aug. 22—	505	1408	William Webb, assignee of Lincoln Webb	160.00	160.00		
Oct. 1—	506	315, 349	J. C. Carwile	200.00	200.00		
Nov. 14—	507	124	G. G. Johnson, assignee of J. B. Swan	320.00	320.00		
Oct. 10—	508	849	Augustus Cleale, assignee of Henry Brown			40.00	40.00
Dec. 8—	509	1183	Samuel H. Creps			86.25	86.25
Dec. 9—	510	1024	John Thomas			78.35	78.35
Dec. 9—	511	925	Frederick W. Behrens	49.62	49.62		
Dec. 9—	512		Not issued				
Dec. 23—	513	219, 633	James D. Farwell			279.50	279.50
Jan. 24—	514	1416	Rufus H. Small			80.00	80.00
Jan. 28—	515	1623	N. W. Fales			40.00	40.00
Jan. 28—	516	645	Mrs. Mary Fairbanks, guardian of the persons and estate of Frank, Wm. H., and Harriet Amelia Fairbanks, minors				
Feb. 5—	517	635	H. C. Wilson	80.00	80.00		
Feb. 3—	518	988	Joseph H. Glide			320.00	320.00
Feb. 8—	519	1741, 1742	William M. Scott	80.00	80.00	160.00	160.00
Feb. 25—	520	1706	W. S. M. Wright	80.00	80.00		
Feb. 25—	521	1343, 1362	Joseph Korbel	160.00	160.00		
Mar. 7—	522	1114	D. O. Daggett			80.00	80.00
Mar. 31—	523	1759, 1792, 1793	Robert S. Hardin	129.68	129.68		
May 1—	524	1805	George D. Rowan			160.00	160.00
May 21—	525	1756, 1757	Marcus D. Hyde, assignee of Samuel and John Kelly	104.97	120.00		
May 21—	526	1761	Priestly Hall			40.00	40.00
May 21—	527	495	Joel P. Whitney, assignee of Francis L. Whitney			80.00	80.00
May 26—	528	1115, 1116, 1118, 1120	Albert Dibble	530.81	530.81		
July 21—	529	430, 432, 497, 559, 621, 1148	Jackson Hart and W. P. Harrington, assignees of Jefferson Walker			508.00	508.00
Aug. 17—	530	1780	William Hawes	32.75	40.00		
Aug. 17—	531	1781	John Boggs			40.00	40.00
Aug. 17—	532	1747	Jesse D. Carr	40.00	40.00		
Sept. 12—	533	478, 480, 481, 484, 611	W. W. Brown, assignee of Brown & Curtis			804.00	804.00
Sept. 12—	534	1673	Walter M. Jeffreys			40.00	40.00
Sept. 12—	535	796, 1421	C. A. Perkins (amendatory to 481)	129.19	129.19		

Oct. 2.	536	1441	W. A. Turner	40.00	40.00	40.00	---
Feb. 26.	537	1624	George H. Singley, assignee of W. P. Lampkin	40.00	40.00	40.00	---
Feb. 20.	538	1422	Charles H. F. Braun	70.56	70.56	170.53	---
Feb. 20.	539	1112	John C. White	---	---	---	170.53
May 28.	540	659	Henry Venigerholz and Hiram Gilmore	40.00	40.00	40.00	---
May 28.	541	301	Richard McEnepy	40.00	40.00	---	---
May 28.	542	1708	Mary E. Cook	100.00	100.00	---	---
May 28.	543	314	L. H. Baker	---	---	---	---
May 28.	544	1330	M. Mulquency, assignee of Thos. H. Dowling	---	---	40.00	40.00
May 28.	545	1589	E. F. Beale	---	---	160.00	160.00
May 28.	546	1615	E. F. Beale	---	---	240.00	240.00
May 28.	547	1564	Alexander Coyner	---	---	51.18	51.18
May 28.	548	1622	Heman Thompson	---	---	40.00	40.00
May 28.	549	1643	Thomas S. Hardin	---	---	---	---
May 28.	550	1606	Robert A. Blair	37.31	40.00	80.00	80.00
May 28.	551	1656	Robert G. Gibson	---	---	---	---
May 28.	552	981	M. Dooling	30.17	40.00	---	---
May 28.	553	1727	N. H. Fales	80.00	80.00	---	---
May 28.	554	1654	George H. Singley	40.00	40.00	40.00	40.00
May 28.	555	1655	George H. Singley	40.00	40.00	---	---
June 22.	556	1322	John Reynolds	---	---	40.00	40.00
June 22.	557	1328	John Reynolds	---	---	80.00	80.00
June 22.	558	1574	H. Burgett	40.00	40.00	---	---
June 22.	559	1573	John B. Ross	40.00	40.00	---	---
June 22.	560	1579	A. T. Wilton	40.00	40.00	---	---
June 22.	561	552	Thomas Cockburn	---	---	120.00	120.00
June 22.	562	1319	Daniel Giovannini, assignee of L. D. Casey, the latter assignee of William Moyle	40.00	40.00	---	---
June 22.	563	288.	John L. Bromley	105.56	105.56	---	---
June 22.	564	1553	Frank Statzel	40.00	40.00	---	---
June 22.	565	1231	T. C. Herbert, assignee of Ralph de Clairmont	160.00	160.00	---	---
June 22.	566	716	John Tuohy	---	---	320.00	320.00
June 22.	567	781	John Tuohy	---	---	624.38	624.38
June 22.	568	1769	E. G. Judson	---	---	40.00	40.00
June 22.	569	1556	M. McStay	38.32	40.00	---	---
June 22.	570	1557	M. McStay	---	---	120.00	120.00
June 22.	571	1648	J. D. Carr, assignee of C. H. Schultz	40.00	40.00	40.00	40.00
June 22.	572	1642	C. P. Moore	40.00	40.00	---	---
June 22.	573	1736	Berry Wright	34.14	40.00	---	---
July 24.	574	1691	Thomas Flint	---	---	---	---
July 24.	575	6063	John G. Bush	80.00	80.00	---	80.00
July 24.	576	1713	John G. Bush	40.00	40.00	---	---
July 24.	577	1726	John G. Bush	40.00	40.00	---	---
July 24.	578	1719	Louis Levinsky	---	---	---	---
July 24.	579	1257		40.00	40.00	40.00	40.00

STATEMENT OF PATENTS ISSUED—Continued.

Date of Patent.	No. of Patent.	Number of Location.	NAME OF PATENTEE.	Minimum.		Double Minimum.	
				Area Patented.	Area Accepted by State.	Area Patented.	Area Accepted by State.
1889—							
July 24—	580	1261	Louis Levinsky			40.00	40.00
July 24—	581	1265	Louis Levinsky			40.00	40.00
July 24—	582	1589	W. P. Ink	40.00	40.00		
July 24—	583	1561	W. P. Ink	40.00	40.00		
July 24—	584	1049	Jackson Brown			120.49	120.49
July 24—	585	1555	Frederick Yordt	40.00	40.00		
Sept. 5—	586	1308	Matthew Lynch				
Sept. 5—	587	803	Allen Towle				
Sept. 5—	588	805	Allen Towle				
Sept. 5—	589	1235	Charles David			36.93	40.00
Sept. 5—	590	747	Ruel Stickney	40.00	40.00	40.00	40.00
Sept. 5—	591	747 ¹	Ruel Stickney	40.00	40.00		
Sept. 5—	592	747 ²	Ruel Stickney	40.00	40.00		
Sept. 5—	593	1682	Charles C. Paulk	40.00	40.00		
Sept. 5—	594	1689	Berry Wright	53.89	40.00		
Sept. 5—	595	921	James L. Gould			40.00	40.00
Sept. 5—	596	1680	Berry Wright	39.19	40.00		
Sept. 5—	597	1149	Augustus Moore			37.00	40.00
Sept. 5—	598	1800	George Atkinson			40.00	40.00
Sept. 5—	599	1443	Hiram M. Buck			40.00	40.00
Sept. 17—	600	Seminary	James H. Wilson and Warren Moore, assignees of Andrew Corbett (160 acres)				
Oct. 9—	601	1720	B. Marks and M. Nerofield, assignees of C. H. English	40.00	40.00		
Oct. 9—	602	1630	James F. Burris	40.00	40.00		
Oct. 9—	603	1633	James F. Burris	40.00	40.00		
Oct. 9—	604	598	Robert Clark, assignee of Alfred Tucker			40.00	40.00
Oct. 9—	605	1313	William Farrington, assignee of Peter Donnelly			80.00	80.00
Oct. 9—	606	1586	William E. Kaiser, assignee of Isaiah Yount	63.56	63.56		
Oct. 9—	607	1748	John C. Russell, assignee of William A. Russell			324.08	324.08
Oct. 9—	608	1618	Jesse D. Carr			40.00	40.00
Oct. 9—	609	1650	N. Goldtree, assignee of Morris Goldtree, assignee of the estate of David Russell in insolvency				
Oct. 14—	610	603	J. N. Hubbard, assignee of Timothy Paige	40.00	40.00		
Oct. 14—	611	1036	Peter Bartle, assignee of George Bartle	160.00	160.00	40.00	40.00
Oct. 14—	612	1678	William Dinning	40.00	40.00		

Oct. 14	613	801	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	280.00	280.00	280.00
Oct. 14	614	802	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	320.00	320.00	320.00
Oct. 14	615	803	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	280.00	280.00	280.00
Oct. 14	616	804	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	120.00	120.00	120.00
Oct. 14	617	806	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	320.00	320.00	320.00
Oct. 14	618	807	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	200.00	200.00	200.00
Oct. 14	619	808	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.			
Oct. 14	620	809	(canceled)			
Oct. 14	621	810	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	100.00	100.00	100.00
Oct. 14	622	811	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	320.00	320.00	320.00
Oct. 14	623	812	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	280.00	280.00	280.00
Oct. 14	624	813	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	320.00	320.00	320.00
Oct. 14	625	814	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	280.00	280.00	280.00
Oct. 14	626	815	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	240.00	240.00	240.00
Oct. 14	627	816	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	320.00	320.00	320.00
Oct. 14	628	820	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	100.00	100.00	100.00
Oct. 14	629	821	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	240.00	240.00	240.00
Oct. 14	630	851	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	200.00	200.00	200.00
Oct. 14	631	852	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	200.00	200.00	200.00
Oct. 14	632	853	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	120.00	120.00	120.00
Oct. 14	633	854	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	40.00	40.00	40.00
Oct. 14	634	855	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	120.00	120.00	120.00
Oct. 14				40.00	40.00	40.00

STATEMENT OF PATENTS ISSUED—Continued.

Date of Patent.	No. of Patent	Number of Location.	NAME OF PATENTEE.	Minimum.		Double Minimum.	
				Area Patented.	Area Accepted by State.	Area Patented.	Area Accepted by State.
1889 Oct. 14	635	869	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	80.00	80.00		
Oct. 14	636	632	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	1,918.05	1,918.05		
Oct. 14	637	1357	R. H. Bell, assignee of Hugh Roddin	160.00	160.00		
Oct. 14	638	1635	John Johansen	40.00	40.00		
Oct. 31	639		Sierra Lumber Co., amendatory of patent No. 619	320.00	320.00		
Oct. 31	640	1704	George H. Crucker	40.00	40.00		
Dec. 20	641	1698	J. H. Burchard	79.39	79.39		
Dec. 20	642	1689	R. A. Loomis, assignee of N. S. Robinson, the latter assignee of S. A. Rackliffe.	40.00	40.00		
Dec. 20	643	1297	William Pinkerton, Jr., and Charles W. Jackson, assignees of Charles Ashton	40.00	40.00		
Dec. 20	644	1423	William Pinkerton, Jr., and Charles W. Jackson, assignees of Charles Ashton	80.00	80.00		
Dec. 20	645	1697	N. C. Mathers	80.00	80.00		
Dec. 20	646	774	Isaac N. Chapman	40.00	40.00		
Dec. 20	647	1576	John F. Todd	40.00	40.00		
Dec. 20	648	976	Oscar R. Harmon	40.00	40.00		
Dec. 20	649	1169	John Gleason			40.00	40.00
Dec. 20	650	1805	Alexander Gwynne			40.00	40.00
Dec. 20	651	1568	Julius Weyand	40.00	40.00		
Jan. 2	652	1724	R. M. Poyson	40.00	40.00		
Jan. 2	653	1723	R. M. Poyson	40.00	40.00		
Jan. 2	654	1724	R. M. Poyson	40.00	40.00		
Jan. 2	655	1253	M. Mulkenney	364.49	364.49		
Jan. 2	656	330	W. G. Henneke, assignee of J. W. Galtner			38.28	40.00
Jan. 16	657	691	Mary R. Hoag, nee Prussing, assignee of Henry J. Werner			40.75	40.75
Jan. 16	658	1619	A. J. Thomas	88.79	88.79		
Jan. 16	659	1632	A. J. Thomas	40.00	40.00		
Jan. 16	660	1633	A. J. Thomas	40.00	40.00		
Jan. 16	661	1730	A. J. Thomas	40.00	40.00		
Jan. 16	662	1620	Thomas & Ristine	80.00	80.00		
Jan. 16	663	1621	Thomas & Ristine	40.00	40.00		

1890

Jan. 16--	664	1675	L. V. Cushman.	160.00	160.00	---
Jan. 16--	665	1676	L. V. Cushman.	160.00	160.00	---
Jan. 16--	666	1582	John McCann.	40.00	40.00	---
Mar. 12--	667	329	W. G. Henneke, assignee of J. W. Gaither.	40.00	40.00	80.00
Mar. 12--	668	864	Allen Torole.	---	---	---
Mar. 12--	669	1778	William A. Morris.	40.00	40.00	---
Mar. 12--	670	348	Mary E. Peppard, assignee of John Mullin.	80.00	80.00	---
Mar. 21--	671	1748	Andrew J. Viele.	---	160.00	160.00
April 5--	672	1268	Frank W. Lynch, assignee of James Lynch.	135.73	135.73	---
April 5--	673	1694	Frank W. Lynch, assignee of James K. Lynch.	40.00	40.00	---
April 5--	674	1739	Frank W. Lynch, assignee of James K. Lynch.	40.00	40.00	---
April 5--	675	423	James Lynch.	80.00	80.00	---
April 5--	676	1298	James Lynch.	40.00	40.00	---
April 5--	677	1304	James Lynch.	40.00	40.00	---
April 5--	678	1731	James R. Hebbroon	40.00	40.00	---
April 5--	679	1692	James K. Lynch.	40.00	40.00	---
April 5--	680	1661	James R. Hebbroon, assignee of W. L. Hebbroon	80.00	80.00	---
April 5--	681	1404	B. V. Sargent.	80.00	80.00	---
April 5--	682	1405	B. V. Sargent.	260.89	260.89	---
April 5--	683	1411	B. V. Sargent.	80.00	80.00	---
April 5--	684	1634	B. V. Sargent.	80.00	80.00	---
April 5--	685	1635	B. V. Sargent.	80.00	80.00	---
April 5--	686	584	E. T. Donnelly, A. J. Donnelly, and J. F. Dunne, assignees of Robert Morrison.	80.00	80.00	---
April 5--	687	585	E. T. Donnelly, A. J. Donnelly, and J. F. Dunne, assignees of Robert Morrison.	80.00	80.00	---
April 5--	688	786	E. T. Donnelly, A. J. Donnelly, and J. F. Dunne, assignees of Robert Morrison.	80.00	80.00	---
April 5--	689	1674	James R. Hebbroon.	40.00	40.00	---
April 5--	690	1329	James F. Dunne, assignee of E. T. Donnelly.	160.00	160.00	---
April 5--	691	1410	James F. Dunne, assignee of E. T. Donnelly.	160.00	160.00	---
April 28--	692	1751	William Dunphy	102.40	102.40	---
April 28--	693	1752	William Dunphy	40.00	40.00	---
April 28--	694	1796	George E. Otis	40.00	40.00	---
May 2--	695	352	W. G. Henneke, assignee of J. W. Gaither.	120.37	120.37	---
May 2--	696	599	R. B. Smith	40.00	40.00	---
May 2--	697	1057	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Flume and Lumber Co.	138.60	138.60	---
May 2--	698	1058	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Flume and Lumber Co.	320.00	320.00	---
May 2--	699	1059	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Flume and Lumber Co.	320.00	320.00	---
May 2--	700	1060	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Flume and Lumber Co.	40.00	40.00	---

STATEMENT OF PATENTS ISSUED—Continued.

Date of Patent.	No. of Patent.	Number of Location.	NAME OF PATENTEE.	Minimum.		Double Minimum.	
				Area Patented.	Area Accepted by State.	Area Patented.	Area Accepted by State.
1890—May 2	701	1061	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	80.00	80.00		
May 2	702	1062	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	120.00	120.00		
May 2	703	1063	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	160.00	160.00		
May 2	704	896	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	202.75	202.75		
May 2	705	897	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	160.00	160.00		
May 2	706	898	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	240.00	240.00		
May 2	707	899	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	320.00	320.00		
May 2	708	900	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	314.03	314.03		
May 2	709	901	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	298.61	298.61		
May 2	710	910	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	320.00	320.00		
May 2	711	911	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	200.00	200.00		
May 2	712	912	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	320.00	320.00		
May 2	713	913	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	320.00	320.00		
May 2	714	914	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	320.00	320.00		
May 2	715	915	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	321.11	321.11		
May 2	716	916	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	320.00	320.00		
May 2	717	917	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Plume and Lumber Co.	320.00	320.00		

May 2	718	918	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Flume and Lumber Co.	240.00	240.00	79,012.17
May 2	719	919	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Flume and Lumber Co.	320.00	320.00	46,383.49
May 2	720	920	Sierra Lumber Co., assignees of C. T. Hopkins, trustee in bankruptcy of Sierra Flume and Lumber Co.	200.00	200.00	125,395.66
Total area of minimum land patented						79,517.63
Total area of double minimum land patented						46,710.35
Total area patented to June 30, 1890						126,227.98
Total area minimum land accepted by State						
Total area double minimum land accepted by State						
Total area accepted by State to June 30, 1890						

Respectfully submitted.

J. H. C. BONTÉ,
Land Agent.

DONATIONS TO THE UNIVERSITY LIBRARY, 1889-90.

	Books.	Pam- phlets.
Adelbert College, Cleveland, O.		1
Alabama Agricultural Experiment Station		2
Alabama University		1
Alameda Free Public Library	1	1
Alcorn A. and M. College, Rodney, Miss.		2
Allen, Edward G., London	1	
American Association for Advancement of Science		1
American Catholic Historical Society	1	1
American Geographical Society, New York		5
American Institute of Architects, New York		11
American Institute of Mining Engineers	1	
American Nautical Almanac office	2	
American Philological Society	3	2
American Pomological Society, Ann Arbor, Mich.		1
American Standard, San Francisco	1	
American Woman Suffrage Association, Boston		1
Amherst College		1
Amity College, College Springs, Iowa		1
Andover Theological Seminary		2
Anonymous	10	2
Anthony, Susan B., Rochester, N. Y. (through Ellen C. Sargent, S. F.)	4	
Arkansas Geological Survey	2	
Armes, William D.	11	
Ashburner, Mrs. William	3	
Astor Library, New York		1
Astronomical Society of the Pacific, San Francisco		4
Auburn Theological Seminary		1
Augustana College and Theol. Sem., Rock Island, Ill.		1
Bailey, Charles A., collection of real estate maps and circulars		1
Baltimore College of Dental Surgery		3
Bangor Public Library		2
Barnard, E. E., Lick Observatory		1
Barnard College, New York		1
Basel Universität		5
Bates College, Lewiston, Me.		1
Bell, A. Melville, Washington, D. C.	1	
Benton, Miss May F., 20 photographs		
Berkeley "Advocate"	1	
Berkeley "Herald"	1	
Berkeleyan Stock Company	2	
Berlin Akademie der Wissenschaften	1	
Bidwell, John, Chico, Cal.		1
Bierwirth, H. C.		1
Biolley, Paul	1	
Birmingham, England, Free Libraries	3	
Blake's Collegiate Institute, San Bernardino, Cal.		1
Bloor, A. J., New York	1	
Bonn Universität	9	112
Bonté, Dr. J. H. C. (besides 188 duplicate pamphlets)	6	73
Boston American Congregational Association		2
Boston Athenæum		1
Boston College		1
Boston Public Library	4	4
Boston Record Commission	1	
Boston University		4
Bowdoin College, Brunswick, Me.		2
Bradley, Prof. C. B.		1
Breslau Universität	3	
Brookline Public Library		1
Brooklyn Civil Service Reform Association		1

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Brussels Université.....		1
Bryn Mawr College.....		1
Buenos Ayres University.....		1
Burnham, S. W., Lick Observatory.....		3
California Academy of Sciences.....	2	
California Board of State Viticultural Commissioners.....	1	
California College, Oakland, Cal.		2
California Homœopath.....	4	
California Medical Journal.....	2	
California Secretary of State.....	11	
California Society of Pioneers.....		1
California State Board of Horticulture.....	1	2
California State Library.....	1	
California State Mineralogist.....	1	
California State Normal School, Chico.....		1
California State Normal School, Los Angeles.....		2
California Superintendent of Public Instruction.....	2	
Calvin College, Cleveland, O.		1
Canada Experimental Farms.....		3
Canada Geological Survey.....	2	3
Canisius College, Buffalo, N. Y.		1
Carson and Newman College, Mossy Creek, Tenn.....		1
Carsow, Felix H., Class of 1891, U. C.	2	
Carthage College.....		1
Charleston College.....		1
Chicago Historical Society.....	1	
Chicago Public Library.....		12
Christy, Prof. S. B.	1	
Cincinnati Public Library.....		4
Cincinnati Young Men's Mercantile Library Association.....		2
Clark, W. S., Boston.....	1	
Clark University, Worcester, Mass.....		2
Clay, C. M., White Hall, Ky.....		2
Clermont Université.....		1
Cogswell Polytechnic College, San Francisco.....		1
Colby University, Waterville, Me.....		2
College of the City of New York.....		1
College of New Jersey.....		1
Colorado College and Cutler Academy.....		1
Colorado State Agricultural College, Fort Collins.....		5
Colorado State Library.....		1
Colorado University, Boulder, Col.		2
Columbia Athenæum.....		1
Columbia College.....		1
Columbia Theological Seminary.....		1
Connecticut Agricultural Experiment Station.....		4
Connecticut Association of Civil Engineers and Surveyors.....		1
Connecticut State Library.....		1
Contra Costa "Gazette".....	2	
Cook, Prof. Albert S.	2	13
Cooke, J. P., Boston.....		1
Cooper Union, for the advancement of science and art, New York.....		3
Cornell University.....	1	3
Counsel, Edward, Somerville, Victoria.....	1	3
Curtis, William E., Washington, D. C.	1	
Cust, Robert N., London.....	8	
Dakota Agricultural College.....		2
Danté Society, Cambridge, Mass.....		1
Dartmouth College.....		2
Davidson, Prof. George.....	1	1
Davie, J. L., Oakland, Cal.....		1
Davis, President Horace (besides duplicates).....	148	672
Davis, J. C. Bancroft.....		1

DONATIONS TO THE LIBRARY—Continued.

	Books.	Pam- phlets.
Delaware College, Newark, Del.		4
Denison University and Shepardson College, Greenville, O.		1
De Pauw University, Greencastle, Ind.		1
Doyle, Hon. John T.	1	1
Drew Theological Seminary, Madison, N. J.		1
Drury College, Springfield, Mo.		1
Earlham College, Richmond, Ind.		1
Eaton, D. Cady, New Haven, Conn.		1
Edwards, Rev. John, Choctaw Nation	1	
Elisha Mitchell Scientific Society	1	
Elmira College		1
Emory and Henry College, Tazewille, Va.		1
Essex Institute, Salem, Mass.	8	10
Fewkes, J. Walter, Boston		1
Fischer, Frank, Class of 1886, U. C.		1
Fisher, L. P., San Francisco	27	
Fiske, Prof. Willard, Florence, Italy		1
Florence, Biblioteca Nazionale Centrale	3	
Florida Experiment Station, Lake City, Fla.		4
France, Minister of Agriculture		7
Franklin and Marshall College and Theological Seminary		1
Franklin College		1
Fraser, Walter H., Class of 1890, U. C.	20	7
Friend's Book Association of Philadelphia		1
Friese, Philip C., Chicago		1
Gambier College		1
Garin, Prof. Paul		1
Gaskill, Varney W.	1	
Geneva Université	4	47
George, Henry, N. Y.		1
Georgetown University, Washington, D. C.		1
Georgia Commissioner of Agriculture		8
Giessen Universität	1	31
Gilman, Arthur, Cambridge, Mass.		1
Gilman, President Daniel C.	1	
Goldstone, Louis, University of California		1
Gore, G., LL.D., Birmingham, England		12
Göttingen Universität	5	104
Granada University		3
Gray, Samuel M., Providence, R. I.	1	
Graz Universität		6
Great Britain, Secretary of State		5
Green, Samuel A., Boston		7
Green, Samuel S., Worcester		1
Greene, Prof. Edward L.	2	2
Greifswald Universität		8
Griswold, W. M., A.B.		1
Haas, E. F., Class of 1892, U. C.		3
Hager, Hon. John S.	1	
Hahnemann Medical College and Hospital, Chicago		1
Halle Universität	6	109
Hamilton College, Clinton, N. Y.		1
Hampton Normal and Agricultural Institute		1
Hampden-Sidney College		1
Hanover College		1
Harrington, Willard B.		1
Hartford Seminary		2
Harvard University	8	19
Hatch Experiment Station, Amherst, Mass.	4	4
Haverford College		3
Heath & Co., Boston	1	
Heidelberg Universität	3	28
Hennecke & Co., Chicago	1	2
Henry, J. Buchanan, New York	1	
Heydenfeldt, S., Jr., San Francisco		2
Hilgard, Prof. E. W.		25

DONATIONS TO THE LIBRARY—Continued.

	Books.	Pam- phlets.
Hill, C. W., Lick Observatory	-----	1
Hiram College	-----	1
Hobart College, Geneva, N. Y.	-----	1
Holden, Prof. E. S. (besides duplicates)	8	164
Holden, Prof. Warren, Philadelphia	-----	1
Holy Ghost College, Pittsburg, Penn.	-----	1
Hopkins Academy, Oakland, Cal.	-----	1
Howard, Prof. Albert A.	-----	4
Howard University, Washington, D. C.	-----	2
Howison, Prof. George H.	1	3
Hutchinson, Myron, San Francisco	-----	1
Illinois State Laboratory of Natural History	1	-----
Industrial Education Association, New York	-----	1
Institution of Civil Engineers, London	5	-----
Iowa Academy of Sciences	-----	1
Iowa College, Grinnell, Iowa	-----	1
Iowa State Agricultural College	-----	4
Iowa State Historical Society	-----	4
Iowa State University	-----	2
Italy, Minister of Agriculture, etc.	-----	15
Italy, R. Comitato Geologico, Roma	-----	1
Iverson, Blakeman & Co.	1	1
Japan Seismological Society, Yokohama	-----	2
Jena Universität	-----	269
Johns Hopkins University	6	18
Johnson, Rossiter	1	-----
Jones, Prof. William Carey	4	-----
Kalamazoo College	-----	1
Kansas Academy of Science	3	-----
Kansas State Agricultural College	-----	1
Keim, Randolph, Washington, D. C.	1	-----
Kentucky Agricultural Experiment Station	-----	14
Königsberg Universität	5	49
Lafayette College, Easton, Pa.	-----	1
Lake Forest University	-----	2
Lampadius, J. G. H., Alameda	-----	1
Lang, A. G., Class of 1890, U. C.	6	-----
Lansing, G. L., San Francisco	1	3
Laval University, Quebec	-----	1
Lawrence Free Public Library	-----	1
Lawrence University, Appleton, Wis.	-----	1
Layman, Joseph D., Class of 1888, U. C.	1	-----
Lebanon Valley College, Annville, Pa.	-----	1
Le Conte, Dr. John	-----	10
Le Conte, Prof. Joseph	3	30
Leiden Université	-----	5
Leipzig Universität	-----	3
Leuschner, Armin O.	-----	5
Lezinsky, David L., Class of 1884, U. C.	1	-----
Lincoln University	-----	2
Lombard University, Galesburg, Ill.	-----	1
Los Angeles "Times"	8	-----
Louisiana State University and M. College	-----	2
Louvain Université Catholique	4	10
Lowell Old Residents' Historical Association	1	-----
Loyola College, Baltimore, Md.	-----	1
Luther College, Decorah, Iowa	-----	1
Lwow Universität	-----	2
Lyon Université	6	1
McKenna, Hon. Joseph	5	-----
McKisick, L., Class of 1890, U. C.	-----	1
McLaughlin, Prof. A. C., Univ. of Mich.	-----	1
Madrid, Spain, Universidad Centrale	-----	2
Maine, State College of A. and M. Arts	-----	1
Manchester City Library	-----	2

DONATIONS TO THE LIBRARY—Continued.

	Books.	Pam- phlets.
Manhattan College		1
Marburg Universität	5	
Martin, Jas. C., Oakland, Cal.		2
Maryland Agricultural College	1	5
Marysville College		1
Massachusetts Agricultural College		3
Massachusetts Board of Charity	1	
Massachusetts Bureau of Statistics of Labor	7	13
Massachusetts Institute of Technology		3
Massachusetts State Board of Education	1	
Massachusetts State Library	1	
Melbourne University		1
Melvin, H. A., Class of 1889, U. C.		2
Merced Academy		1
Meriden Scientific Association	1	
Miami University, Oxford, O.		1
Michigan Agricultural College		10
Michigan Engineering Society		1
Michigan Mining School, Houghton, Mich.		1
Michigan State Board of Health		5
Milan, R., Instituto Technico Superiore		1
Milwaukee Public Library		1
Minnesota Geological and Natural History Survey		3
Missouri Agricultural College Experiment Station		3
Missouri University School of Mines, Rolla, Mo.		1
Molee, Elias, Bristol, Dakota	1	
Moncalieri Osservatorio Centrale		1
Monrad, J. H., Winnetka, Ill.	1	1
Moore's Hill College		1
Morrow, Hon. W. W.	9	
Moses, Prof. Bernard	2	12
Muhlenberg College, Allentown, Pa.		1
Murdock, Charles A., San Francisco	7	2
National Association of Wool Manufacturers	3	5
National Civil Service Reform League	1	2
National Silver Committee, Washington, D. C.		13
Neill, Edward D., St. Paul, Minn.		1
Nevada Agricultural Experiment Station		2
Newberry Library, Chicago		1
New England Historic Genealogical Society, Boston		1
New England Methodist Historical Society	1	1
New Hampshire Agricultural Experiment Station		3
New Jersey Agricultural College		15
New Jersey Geological Survey	1	
New Jersey State Library		1
New York Academy of Sciences		3
New York American Numismatic and Archaeological Society		1
New York Apprentices' Library		2
New York Civil Service Reform Association		1
New York General Theological Seminary		1
New York Mercantile Library Association		1
New York Meteorological Observatory	1	
New York Society for Political Education		23
New York State Board of Health		10
New York Union Theological Seminary		2
Northwestern University, Evanston, Ill.		1
Northwestern University, Watertown, Wis.		1
Oakland "Evening Tribune"	6	
Oakland Health Department		13
Oakland "The Paragraph"	1	
Oberlin College		2
Occident Stock Company	2	9
Occidental University, Los Angeles, Cal.		1
Ohio Centennial Commission	1	
Ohio Meteorological Bureau		10
Ohio Military Academy, Portsmouth, O.		1
Ohio State Forestry Bureau	1	
Ohio State University		21

DONATIONS TO THE LIBRARY—Continued.

	Books.	Pam- phlets.
Ohio Wesleyan University		1
Omaha Board of Trade		1
Oneida Historical Society, Utica, N. Y.		4
Oregon University		5
Ottawa University, Kansas		1
Otterbein University, Westerville, O.		1
Pacific (The)	2	
Pacific Educational Journal	3	
Palache, Charles, Class of 1891, U. C.	1	5
Paris, Institute de France	1	
Peabody Institute, Baltimore, Maryland	3	1
Peck & Snyder, N. Y.		2
Penn College, Oskaloosa, Iowa		1
Pennsylvania Secretary of State	1	
Pennsylvania State College	1	3
Pennsylvania State Library	1	
Perry, Mrs. B. F., Greenville, S. C.	1	
Pheby, F. S., Class of 1893, U. C.	1	
Philadelphia Apprentices' Library Company		1
Philadelphia Athenæum		1
Philadelphia Board of Directors of City Trusts		1
Philadelphia Library Company		4
Philadelphia Water Department		1
Phillips' Exeter Academy, Exeter, N. H.		1
Poland, W. C., Providence, R. I.		1
Pomona College, Pomona, Cal.		1
Poor, H. V. and H. W.	3	
Portland Public Library		2
Portsmouth Athenæum Library		1
Prag Universität		3
Pratap Chandra Ray		7
Pratt Institute, Brooklyn, N. Y.		1
Presbyterian Historical Society, Philadelphia		1
Providence Athenæum		1
Purdue University, Indiana		7
Rabe, Carl, Berkeley		1
Randolph, Richard, Philadelphia	2	
Raymond, W. G.		2
Regan Vapor Engine Company, S. F.		1
Rensselaer Society of Engineers, Troy, N. Y.		1
Reynolds' Library, Rochester, N. Y.		1
Rhode Island Commissioner of Public Schools	1	
Rhode Island Historical Society	1	3
Rhode Island State Agricultural School		5
Rich, Aquila, N. Y.		1
Richardson, Dr. George M.		1
Rideout, John D., Class of 1890, U. C.	1	1
Ridgeville College and Indiana Normal School		1
Ripon College		1
Roanoke College, Salem, Va.		1
Rochester Theological Seminary		1
Rochester University		2
Røhrig, F. L. O., Pasadena, Cal.	1	11
Rome, Reale Accademia dei Lincei		18
Rome, Regia Università degli Studi		1
Rose Polytechnic Institute, Terre Haute, Ind.		2
Ross, William T., San Francisco	1	
Rowell, Rev. Joseph		1
Rowell, Joseph C.	1	8
Royal Institution of Great Britain		2
Royal Society of London		9
Russell, H. C., New South Wales	1	8
Russell, John A., San Francisco	1	
Rutgers College, New Brunswick, N. J.		1
Sacramento "Record-Union"	8	
Sacramento "Weekly Bee"	1	
St. Andrews University	1	

DONATIONS TO THE LIBRARY—Continued.

	Books.	Pam- phlets.
St. Ignatius College.....		1
St. Louis Mercantile Library.....		1
St. Louis Public Library.....		1
St. Louis University.....		1
St. Mary's College, Kansas.....		1
St. Petersburg Society of Naturalists.....	13	
St. Stevens' College, Annandale, N. Y.....		1
St. Meinrads College, Indiana.....		1
St. Vincent College, Beatty, Penn.....		1
Salt Lake "Herald".....		1
San Diego Free Public Library.....	1	1
San Francisco "Alta-California".....	7	
San Francisco Bohemian Club.....	1	
San Francisco "Daily Report".....	7	
San Francisco "Evening Bulletin".....	9	
San Francisco "Examiner".....	4	
San Francisco Free Public Library.....		1
San Francisco Mercantile Library.....		1
San José State Normal School.....	1	1
Santa Clara College.....		1
Schaeberle, J. M., Lick Observatory.....		1
Schultze, Arthur, San Francisco.....		1
Science Observer.....		4
Scotchler and Gottschall, Berkeley.....		3
Senger, Dr. Henry.....		1
Shinn, Miss M. W., Class of 1880, U. C., besides 8 duplicate volumes and 368 duplicate pamphlets.....	18	391
Shufeldt, Dr. R. W., Smithsonian Institution.....		1
Smith, David T., Wellington, N. Z.....	1	
Smithsonian Institution.....	3	
South Carolina Agricultural Experiment Station.....		2
Southern California Historical Society, Los Angeles.....		1
Southern Pacific Company.....	1	
Southwest Institute, San Diego, Cal.....		1
Springfield Library Association, Mass.....		1
Stanford, Hon. Leland (besides duplicates).....	5	8
Stearns, Robert E. C., Washington, D. C.....		4
Stockdale, Jas. T., Monterey, Cal.....		1
Stoddard, Prof. F. H., New York.....		1
Storr's School Agricultural Experiment Station.....		2
Stringham, Prof. Irving.....	2	2
Symmonds, Wm., Santa Rosa, Cal.....		1
Syracuse University.....		1
Tabor College.....		1
Tacoma Superintendent Public Schools.....		1
Taunton Public Library.....		1
Taylor, Edward R., San Francisco.....		1
Technical Society of the Pacific Coast, San Francisco.....		6
Tennessee University Agricultural Experiment Station.....		4
Texas Agricultural Experiment Station.....		1
Thompson, John Bodine, Point Reyes, Cal.....		1
Tokio English Law School.....	1	
Tokio Imperial University.....		2
Toland, Mary B. M.....	1	
Toronto University.....		2
Torrey Botanical Club.....		3
Trask, Dr. J. B. (through Mrs. A. M. Frodsham).....	1	
Trembley, Dr. J. B., Oakland, Cal.....		3
Tribune Association, New York.....		3
Trinity College, Hartford, Conn.....		3
Trinity College, North Carolina.....		1
Trübner & Company, London.....	3	
Tufts College, College Hill, Mass.....		1
Tulane University, New Orleans.....		1
Turin University.....		1
Turner, W. B., Spokane Falls.....		1
Union University, Schenectady, N. Y.....		1
United States (various departments).....	174	105
University of California, Class of 1890.....		2

DONATIONS TO THE LIBRARY—Continued.

	Books.	Pam- phlets.
University of California, Class of 1891, one photograph.....		
University of California, Class of 1893, one class pin.....		
University of California, Lick Observatory, 11 photos, and duplicates.....	35	242
University of California, Recorder's office.....		2
University of California, Secretary's office.....	2	
University of Cincinnati.....		1
University College, San Francisco.....		1
University of Edinburgh.....	2	
University of Georgia.....		3
University of Glasgow.....	1	
University of Illinois.....	1	1
University of Kansas.....	1	2
University of Michigan.....		3
University of Minnesota.....		4
University of Nebraska.....		6
University of North Carolina.....		10
University of North Dakota.....		2
University of the Pacific, College Park, Cal.....		2
University of Pennsylvania.....		1
University of South Carolina.....		1
University of the South, Tennessee.....		1
University of Sydney.....	1	
University of Texas.....		4
University of Vermont.....		1
University of Virginia.....		1
University of Wisconsin.....	1	3
Upsala Universitet.....	8	30
Ursinus College, Collegeville, Penn.....		1
Vassar College, Poughkeepsie, N. Y.....		1
Vienna Akademie der Wissenschaften.....	4	20
Vienna Universität.....		4
Walker, Joseph B.....	1	
Washburn, William T.....	1	
Washburn College Observatory.....		1
Washburn Laboratory of Natural History, Topeka.....		9
Washington and Lee University.....		1
Washington College, Irvington, Cal.....		1
Washington University, St. Louis.....		1
Waterhouse, S., St. Louis.....		1
Waterman, Gov. R. W.....	1	
Wendte, Rev. Charles W.....	1	34
Werner, E. A., Philadelphia.....		1
Wesleyan University, Middletown, Conn.....		3
Western College, Toledo, Iowa.....		1
Western Reserve Historical Society, Cleveland, O.....		7
Western University of Pennsylvania.....		1
West Virginia Agricultural Experiment Station.....		4
Whitman College, Walla Walla, Wash.....		1
Wickson, Edward J.....	1	
Wilhelm, Thomas.....	1	
Williams College.....		1
Wilmington Institute.....		1
Windler, H., Berlin.....	1	
Woman's Medical College of Pennsylvania.....		1
Woodruff, Wilford, Salt Lake City.....	2	
Wooster University, Ohio.....		1
Worcester Free Public Library.....	1	14
Worcester Society of Antiquity.....	2	4
Wright, Carroll D.....	1	
Würzburg Universität.....		5
Yale University.....		38
Yale University Astronomical Observatory.....		1
Zaragoza Literary University.....		4
Zoe Publishing Company, San Francisco.....		2
Totals.....	876	3,636

THE MUSEUM OF THE UNIVERSITY.

J. J. RIVERS, Curator.

MEMORANDA OF ADDITIONS TO THE MUSEUM, 1889-90.

TO THE DEPARTMENT OF ETHNOLOGY.

ARMES, WM. D., Instructor in the English Department of the University, made the following valuable donation: Pair of deerskin socks, from Alaska; part of a wooden mask, Alaska; a well made ivory needle, from Oogliamie, Alaska; a pair of snowshoes, Oogliamie, Alaska; a large ivory harpoon-head, Wainwright Inlet, Alaska; a bone-headed spear, St. Michels, Alaska; one wooden spear shaft, and a bone needle, Alaska; a small harpoon-head, Point Hope, Alaska; a pair of charms, they being two boards representing, in figures, a whale-catching scene, Point Belcher, Alaska; a deerskin Parka, or shirt, Oogliamie, Alaska; a sealskin coat, Alaska; a set of gambling implements, Fort Wrangle, Alaska; a halibut hook, Fort Wrangle, Alaska; two teeth from a Polar bear, St. Michels, Alaska; pair of large sealskin boots, Plover Bay, Siberia; pair of small deerskin boots, Julian Point, Siberia; a pair of deerskin mittens, St. Lawrence Bay, Siberia; two milk tusks of walrus, two and three quarters inches long, East Cape, Siberia; one walrus tusk, two inches long, prepared as an implement, East Cape, Siberia; five ivory carvings, East Cape, Siberia; pair of sealskin trowsers, East Cape, Siberia; a flint skin dresser with carved holder, Point Hope, Alaska; duck snares, composed of rounded pieces of ivory fastened to strings of finely twisted sinews; these are tied in bunches of five and used as an obolus, Point Hope, Alaska; a head-rope for carrying burdens, Yale, British Columbia; a carved stone pestle, Yale, British Columbia; two horn spoons, British Columbia; two wooden spoons, British Columbia; fish hooks, arranged upon a zinc spike as a sinker, Plover Bay, Siberia; an ingenious wooden rattle, having a human-like owl's face, carved upon two sides, Alaska; four miniature wooden masks, Alaska; five wooden figures and a toy canoe, Alaska; a stone skin flesher, or hatchet, Alaska; two artistically carved chopsticks, Alaska; a few small pieces of Tappa cloth, and a piece of the twig of the tree whose bark is formed into the cloth, Hawaii.

CHARLESTON, W. S., Mountain View, Santa Clara, Cal.—Sandstone pestles from Charleston Farm.

CRAWFORD, A. W.—Pestles from San José, Cal.

PALMER, THEODORE.—Obsidian arrowhead, from Santa Rosa, Sonoma County, Cal.; part of a stone pestle, Berkeley; obsidian arrowhead, Berkeley; a pale colored sandstone mortar, Berkeley; a red colored sandstone mortar, Berkeley; and a part of a conglomerate mortar, Berkeley.

RIVERS, J. J., Curator of the Museum.—Stone mortar found on the farm north of University grounds; mortar found near the north line of University grounds; mortar found on the University domain; mortar and pestle, from Centreville; mortar and pestle, from Walnut Creek, Contra Costa County, California; mortar from West Berkeley Mound; a part of a matata from mound of Shell Mound Park; twenty net sinkers, from West Berkeley Mound; eighteen imperfect examples of pestles, from West Berkeley Mound; five imperfect mortars, from West Berkeley Mound; three bottoms of mortars, broken out by the force of pounding, from West Berkeley Mound; one mortar that had been converted from a piece of a larger one, from West Berkeley Mound; sixteen whole pestles, made of various rocks, among them mica slate, sandstone, and basalt, all from West Berkeley Mound; a peculiarly formed pestle, eleven and one half inches at the pounding end, while the opposite end is reduced to an apex of one inch; this was found by J. J. Rivers, near the site of a former Indian encampment behind the Palmer residence on Strawberry Creek, Berkeley; a pestle, found on the Hillegas estate, south of University grounds; a sandstone pestle, from Shell Mound Park; pebble used as a hammer, Shell Mound Park; a stone sinker, crudely made, having three angles simply notched, Shell Mound Park; two rounded stones, possibly used as smoothing tools, from West Berkeley Mound; three naturally rounded stones, possibly used only as heated stones in cooking, West Berkeley Mound; a flat stone, six by six inches, perforated with one large hole near the thinner edge, use doubtful, West Berkeley Mound; three common pattern net sinkers, from Shell Mound Park; ten stones, of various patterns and uses, all from West Berkeley Mound; a drill of hard, black basalt, from Shell Mound Park; three drills, one made of glaucophane, and two of mica schist, all three from West Berkeley Mound; portions of four sandstone drills, from West Berkeley Mound; a small pestle, West Berkeley Mound; a notched piece of basalt, evidently used as a

gauge by which to test certain angular work, from Shell Mound Park; fishing line sinker, perforated at one end, made of serpentine rock, also, another imperfect specimen, both from West Berkeley Mound; a fishing line sinker of serpentine, from Shell Mound Park; four pieces of stone used in smoothing articles of manufacture, West Berkeley Mound; a stone relic, pointed at one end, and an obtuse shoulder worked at the other; its use is possibly that of a sinker to a fishing line, West Berkeley Mound; four carved sandstone relics, of various patterns, West Berkeley Mound; a stone drill, West Berkeley Mound; a green porphyry hammer stone, West Berkeley Mound; a very large net sinker, with groove around the center, West Berkeley Mound; a large part of a perforated net sinker, from Shell Mound Park; shell necklace of wampum, of sixty pieces, found about the skull of an Indian as it was being exhumed from the mound at West Berkeley; a stone drill of mica schist, from Shell Mound Park; two bone implements, used in the art of preparing hides, from Shell Mound Park; eight obsidian relics, from Shell Mound Park; three obsidian relics, Shell Mound Park; four obsidian relics, from Shell Mound Park; a shell ornament, from Shell Mound Park; two fine spearheads, from Shell Mound Park, one of which is six and one half inches long; five obsidian relics, from Napa Valley; a perfect example in carved stone of a trowling line sinker, from Merced River; another fine example of trowling line sinker, from Shell Mound Park; a granitic arrow gauge, from Shasta County; ten bone bodkins, from Shell Mound Park; three bone drills, from Shell Mound Park; a bone saw, from Shell Mound Park; two bone relics, from Shell Mound Park; three bones, in preparation of manufacture into implements, from Shell Mound Park; three stone relics, West Berkeley Mound; a bone saw made from the scapula of the deer, from Shell Mound Park; three wedge-shaped relics made of deer horn, from West Berkeley Mound; a bone saw made from a scapula of the deer, from West Berkeley Mound; two large bone awls made from hind and front of tibia of deer, from Shell Mound Park; some perforated mica, used as money, from Shell Mound Park; box No. 1, of mound material, consisting mostly of human bones, from West Berkeley Mound; box No. 2, mound material, containing fractured human skulls, from West Berkeley Mound; box No. 3 contains a skeleton of an Indian exhumed in 1876 at Shell Mound Park; box No. 4, mound material, human bones, from Shell Mound Park; box No. 5, mound material, human skulls, from West Berkeley Mound; box No. 6, mound material, animal bones, from West Berkeley Mound; box No. 7, mound material, contains human and animal bones, from West Berkeley Mound; box No. 8, mound material, human jaw bones, from West Berkeley Mound; box No. 9, mound material, human leg and arm bones, from West Berkeley Mound; box No. 10, mound material, the principal bones of the skeleton of an Indian killed in battle; the two iliac bones have each an arrow imbedded therein, which may be considered evidence of the last encounter, exhumed from West Berkeley Mound.

- ROBINSON, GEO. PRENTISS, U. C. '91.—A Hoopa Indian baby carrier, with the face shield attached, brought from the Hoopa Reservation at Humboldt County, Cal.; a fancy basket made by Hoopa Indians; a hat plaited with fern fiber of three colors in artistic pattern and design, by Hoopa Indians; a table mat, made by Hoopa Indians; a Hoopa Indian war arrow; and a specimen of hunting arrow of the Klamath Indians.
- SPERRY, J. C., Mammoth Grove Hotel, Calaveras County, Cal.—One spearhead and one arrowhead from Indian burying ground, Stockton, Cal.

TO THE DEPARTMENT OF ZOÖLOGY.

- ARNHEIM, JULIUS S., San Francisco.—*Terebratella transversa-caurina*, from Alaska; a vertebral column and skull of shark, also a vertebra of dogfish, both from the Gulf of California; numerous examples of crustacea from Farralleno Islands; some reptiles from South America.
- ARNOTT, J., Camptonville, Yuba County, Cal.—A specimen of that rare bird, *Hylotomus pileatus*.
- ARMES, W. D., Instructor, University California.—A specimen of the lizard *Gerrhonotus multicarinatus*, from Strawberry Cañon, Berkeley.
- BROWN, BERT, Bolsa, Southern California.—Specimen of the Great Bat, *Nyctinomus ferox*.
- BUSH, MRS. A. E., San José, Cal.—Specimens of *Agraulis vanillæ* from San Pedro, Cal., and of *Callidryas eubule*, from San Pedro, Cal.
- CORNWALL, MISS C. I., U. C. '91.—A large specimen of stomach ball of felted hair found in a hog in Napa City.
- COTGHLAN, J. H., San Francisco, formerly of the U. C.—Specimens of *Argynnis rupertis*, Behr., from Big Tree Grove, Calaveras County, Cal.; *Argynnis monticola*, Behr., Yosemite; *Grupta fawnus*, Edw., Big Trees, Calaveras County; *Vanessa Californica*, Boisd., Big Trees; *Vanessa Atalanta*, Linn.; *Junonia cænia*, Hub., Big Trees, Calaveras County, Cal.
- CRAWFORD, A. W., Oakland, Cal.—Specimens of the following:
Papilio philenor, Alameda County.
Papilio zolicaon, Alameda County.
Papilio eurymedon, Alameda County.
Papilio rutulus, Alameda County.
Pieris napi, Alameda County.
Anthocharis sara, Alameda County.

- Colias eurytheme*, Alameda County.
Argynnis callippe, Alameda County.
Melitæa chalcon, Alameda County.
Grapta satyrus, Alameda County.
Grapta faunus, Alameda County.
Grapta zephyrus, Alameda County.
Vanessa antiopa, Alameda County.
Vanessa Californica, Alameda County.
Vanessa milberti, Alameda County.
Vanessa Atalanta, Alameda County.
Vanessa Huntera, Alameda County.
Vanessa cardui, Alameda County.
Vanessa caryi, Alameda County.
Junonia cænia, Alameda County.
Limnitis Lorquini, Santa Clara County.
Heterochroa Californica, Santa Clara County.
Cæonympha Californica, Santa Clara County.
Satyrus alope, var. *boöpis*, Santa Clara County.
Thecla melinus, Santa Clara County.
Chrysophanus helleoides, Santa Clara County.
Lycæna antiacis, Santa Clara County.
 DEAMER, W. W., Berkeley.—*Helix arrosa*, from Marin County, California.
 EXCHANGE, BY.—*Papilio chresphontes*, Eastern States.
Pieris rapæ, Eastern States.
Colias meadii, Eastern States.
Terias nicippe, Eastern States.
Terias liza, Eastern States.
Terias delia, Eastern States.
Argynnis diana, Southern States.
Argynnis Alceste, Northern States.
Euptata hegesia, Southwestern States.
Melitæa phæton, Eastern States.
Melitæa nycteis, Northern States.
Melitæa Ismeria, Southern States.
Dimonitis ursula, Middle States.
Apatura celtis, Boisd., Southern States.
Apatura clyton, Boisd., Atlantic States.
Debes portandia, Fab., Northern States.
Neonympha canthus, Boisd., Northern States.
Lycæna Lygdamus, Doub., Michigan.
Paphia troglodyta, Fab., Arizona.
Lycæna Shasta, Ewd., California.
Lycæna melissa, Edw., Arizona.
Lycæna marina, Reak., Southern California.
Lycæna Bottoides, Behr., Colorado, California.
Lycæna Daedalus, Behr., Southern California.
Chrysophanus Thõe, Boisd., Eastern States.
Chrysophanus arota, Boisd., California.
Feniseca Tarquinius, Fab., Atlantic States.
Papilio asterias, Detroit, Michigan.
Argynnis cybele, Detroit, Michigan.
Limnitis dissippus, Detroit, Michigan.
Pyrameis Atlanta, Detroit, Michigan.
Pyrameis cardui, Detroit, Michigan.
Grapta interrogationis, Detroit, Michigan.
Eudamus tityrus, Detroit, Michigan.
Catocala concumbens, Detroit, Michigan.
Deilephila lineata, Detroit, Michigan.
Arctia Virginica, Detroit, Michigan.
 Two *Trochus clanculus (undulatus)*, Lam., Bass Straits.
 Two *Trochus clanculus (flagellatus)*, Phil., Bass Straits.
 Three *Australium funbriatum*, Lam., Tasmania.
 Four *Risella melanotoma*, Gmel., Tasmania.
 One *Nerita atrata*, Chem., Bass Straits.
 Three *Monodonta constricta*, Lam., Bass Straits.
 Two *Cantharidus Peronia*, Phil., Bass Straits.
 Four *Cantharidus badius*, Wood., Bass Straits.
 Three *Cancellaria undulata*, Sby., *Spenceriana*, Desh., Bass Straits.
 One *Fasciolaria coronata*, Lam., Tasmania.
 Twenty *Nassa fasciolata*, Lam., Tasmania.
 Fourteen *Nassa pauperata*, Lam., Tasmania.
 Two *Natica umbilicata*, Quoy., Tasmania.
 Twenty *Natica conica*, Lam., Tasmania.
 Fourteen *Ancillaria marginata*, Lam., Tasmania.
 Four *Conus Novæ-Hollandæ*, A., Tasmania.
 One *Mitra giabra*, Swain., Tasmania.

- Seven *Pteronotus triformis*, Roe., Tasmania.
 One *Parmophorus Australis*, Bl., Tasmania.
 Twelve *Cassis semigranosa* (?), Tasmania.
 One *Stomatella imbricata*, Lam., Tasmania.
 Sixteen *Triton subdistortus*, Lam., Bass Straits.
 Thirty *Fusus ustulatus*, Roe., Tasmania.
 Twenty-six *Cypræa angustata*, Gmel., Tasmania.
 One *Cypræa Caputserpentis*, Linn., Tasmania.
 Four *Cypræa moneta*, Linn., Tasmania.
 Two *Cypræa arabica*, Linn., Tasmania.
 One *Cypræa Lynx*, Linn., Tasmania.
 One *Cypræa carneola*, Linn., Tasmania.
 One *Haliotus naevosa-rubra*, Tasmania.
 KELSEY, FRANK B., Berkeley, Cal.—A fine specimen of a nest of the tree-wasp, from Roseburg, Douglas County, Oregon.
 LOUCKS, MISS L. M., Brentwood, Contra Costa County, Cal.—A fine living specimen of the horned lizard, *Phrynosoma coronata*, Blainville.
 MEYER, J. H., Audubon Street, Berkeley, Cal.—The following valuable reptiles: *Crotaphytes collaris*, Say., Arizona; *Sceloporus consobrinus*, B. & G., Arizona; *Cnemidophorus tessellatus*, Say., Arizona; *Uta ornata*, B. & G., Arizona.
 MOUSER, DR. S. M., Berkeley Heights.—A well preserved specimen of the sunfish of the Pacific Ocean.
 O'BRIEN, PAT., Rio Vista.—A specimen of the viviparous fish from the Sacramento River, *Hysteroecarpus Traskii*, Gibbons.
 PALACHE, CHAS., Claremont Road, Temescal.—The following rock-boring shells: *Pholadidea ovoidea*, Gld.; *Pholadidea penita*, Conr.; *Petricola carditoides*, Conr.; *Adula stylina*, Cpr.
 PALMER, THEODORE, Berkeley Cal.—Nest of the trapdoor spider (*Cteniza Californica*).
 POND, LIETU. CHAS. F., U. S. N.—A splendid sample of the Lower California Gopher Snake (*Pityophis vertebralis*), from Abrejos Point, Lower California.
 RAYMOND, W. G., U. C.—The following marine shells;
 Two *Cancellaria scolarina*, Lam., Gulf of Siam.
 Three *Nassa thesites*, Brug., Gulf of Siam.
 Four *Nerita chamælion*, Linn., Gulf of Siam.
 Two *Natica maculosa*, Lam., Gulf of Siam.
 Four *Nerita polita*, Linn., Gulf of Siam.
 Three *Nerita albicilla*, Linn., Gulf of Siam.
 RIVERS, J. J., Curator of the Museum.—Specimens of the new and rare lizard (*Xantusia Riversii*, Cope), from San Clemente Island, off Santa Barbara, Cal.
 SCHRAM, HERMAN, Schramsburg, Napa County, Cal.—Specimen of the snake, *Ophibolus getulus-Boyllii*, which contained in its stomach the snake *Pityophis catenifer*, that measured two thirds the length of its devourer. The act of swallowing was observed by several persons, among whom was Mr. Herman Schram, who presented the captive to our museum.
 STEARNS, E. H., Oakland.—Specimen of the batrachian, *Amblystoma maculatum*, found in the cellar of a house on Eighth Street, Oakland, Cal.
 TURNER, A. C., '93.—A case of Chinese insects, from Hong Kong.
 WALDEON, J. H., Pubelo, Colorado.—A beautiful example of tortoise (*Cistudo ornata*), from Colorado.

TO THE DEPARTMENT OF BOTANY.

- ANDERSON, C. H., '90.—Presented on behalf of Dr. W. G. Farlow, Dr. C. L. Anderson, and Prof. D. C. Eaton, FASCICULUS V. ALGÆ EXSICCATÆ AMERICÆ BOREALIS. This being the complete set up to date of this remarkable collection, all of which have been donated by the authors whose names have been mentioned above.
 ROSA, R. H., Bandon, Oregon.—A large section of the *Cupressus Lawsoniana*, from Coos County, Oregon.

TO THE DEPARTMENT OF PALEONTOLOGY.

- BENTON, L. E., of the U. C., Berkeley, Cal.—A specimen of a *Brachiopoda* that appears new, from the rocks at Stephens Creek, Santa Cruz Mountains.
 MARTIN, G. W., Oakland, Cal.—Examples of anthracite coal, from Napa County, Cal.; some specimens of shale, and a series of the cretaceous fossil *Aucella Piochii*, all from same place, which determines the coal to belong to the cretaceous system.
 MONKS, MISS SARAH P., Normal School, Los Angeles, Cal.—Diatomaceous earth, from the rocks of Rodondo Beach, Los Angeles County, Cal.
 TURKINTON, R. R., Park Avenue, Alameda, Cal.—Examples of fossil shells from China.
 WRIGHT, W. G., San Bernardino County, Cal.—Some cretaceous fossils from Lower California.

CONGRESSIONAL APPROPRIATIONS

FOR THE

MORE COMPLETE ENDOWMENT AND SUPPORT OF THE COLLEGES FOR
THE BENEFIT OF AGRICULTURE AND THE MECHANIC ARTS.

A bill (S. 3714) to apply a portion of the proceeds of the public lands to the more complete endowment and support of the colleges for the benefit of agriculture and the mechanic arts, established under the provisions of an Act of Congress, approved July 2, 1862.

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, That there shall be, and hereby is, annually appropriated out of any money in the treasury not otherwise appropriated, arising from the sale of public lands, to be paid as hereinafter provided, to each State and Territory for the more complete endowment and maintenance of colleges for the benefit of agriculture and the mechanic arts now established, or which may be hereafter established, in accordance with an Act of Congress, approved July 2, 1862, the sum of \$15,000 for the year ending June 30, 1890, and an annual increase of the amount of such appropriation thereafter for ten years by an additional sum of \$1,000 over the preceding year, and the annual amount to be paid thereafter to each State and Territory shall be \$25,000, to be applied only to instruction in agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural, and economic science, with special reference to their applications in the industries of life, and to the facilities for such instruction.

Provided, That no money shall be paid out under this Act to any State or Territory for the support and maintenance of a college where a distinction of race or color is made in the admission of students; but the establishment and maintenance of such colleges separately for white and colored students shall be held to be a compliance with the provisions of this Act, if the funds received in such State or Territory be equitably divided as hereinafter set forth.

Provided, That in any State in which there has been one college established in pursuance of the Act of July 2, 1862, and also in which an educational institution of like character has been established, or may be hereafter established, and is now aided by such State from its own revenue, for the education of colored students in agriculture and the mechanic arts, however named or styled, or whether or not it has received money heretofore under the Act to which this Act is an amendment, the Legislature of such State may propose and report to the Secretary of the Interior a just and equitable division of the fund to be received under this Act between one college for white students and one institution for colored students established as aforesaid, which shall be divided into two parts and paid accordingly, and thereupon such institution for colored students shall be entitled to the benefits of this Act,

and subject to its provisions as much as it would have been if it had been included under the Act of 1862, and the fulfillment of the foregoing provisions shall be taken as a compliance with the provision in reference to separate colleges for white and colored students.

SEC. 2. That the sums hereby appropriated to the States and Territories for the further endowment and support of colleges shall be annually paid on or before the thirty-first day of July of each year, by the Secretary of the Treasury, upon the warrant of the Secretary of the Interior, out of the treasury of the United States, to the State or Territorial Treasurer, or to such officer as shall be designated by the laws of such State or Territory to receive the same, who shall, upon the order of the Trustees of the college or the institution for colored students, immediately pay over said sums to the Treasurers of the respective colleges or other institutions entitled to receive the same, and such Treasurers shall be required to report to the Secretary of Agriculture and to the Secretary of the Interior, on or before the first day of September of each year, a detailed statement of the amount so received and of its disbursement. The grants of moneys authorized by this Act are made subject to the legislative assent of the several States and Territories to the purpose of said grants; *provided*, that payments of such installments of the appropriation herein made as shall become due to any State before the adjournment of the regular session of the Legislature meeting next after the passage of this Act, shall be made upon the assent of the Governor thereof, duly certified to the Secretary of the Treasury.

SEC. 3. That if any portion of the moneys received by the designated officer of the State or Territory for the further and more complete endowment, support, and maintenance of colleges or of institutions for colored students, as provided in this Act, shall by any action or contingency be diminished or lost, or be misapplied, it shall be replaced by the State or Territory to which it belongs, and until so replaced no subsequent appropriation shall be apportioned or paid to such State or Territory; and no portion of said moneys shall be applied, directly or indirectly, under any pretense whatever, to the purchase, erection, preservation, or repair of any building or buildings. An annual report by the President of each of said colleges shall be made to the Secretary of Agriculture, as well as to the Secretary of the Interior, regarding the condition and progress of each college, including statistical information in relation to its receipts and expenditures, its library, the number of its students and professors, and also as to any improvements and experiments made under the direction of any experiment stations attached to said colleges, with their cost and results, and such other industrial and economical statistics as may be regarded as useful, one copy of which shall be transmitted by mail free to all other colleges further endowed under this Act.

SEC. 4. That on or before the first day of July in each year after the passage of this Act, the Secretary of the Interior shall ascertain and certify to the Secretary of the Treasury as to each State and Territory whether it is entitled to receive its share of the annual appropriation for colleges, or of institutions for colored students, under this Act, and the amount which thereupon each is entitled, respectively, to receive. If the Secretary of the Interior shall withhold a certificate from any State or Territory of its appropriation, the facts and reasons therefor shall be reported to the President, and the amount involved shall be

kept separate in the treasury until the close of the next Congress, in order that the State or Territory may, if it should so desire, appeal to Congress from the determination of the Secretary of the Interior. If the next Congress shall not direct such sum to be paid, it shall be covered into the treasury. And the Secretary of the Interior is hereby charged with the proper administration of this law.

SEC. 5. That the Secretary of the Interior shall annually report to Congress the disbursements which have been made in all the States and Territories, and also whether the appropriation of any State or Territory has been withheld, and if so the reasons therefor.

SEC. 6. Congress may at any time amend, suspend, or repeal any or all of the provisions of this Act.

GEOLOGICAL SURVEY MATERIAL.

UNIVERSITY OF CALIFORNIA,
BERKELEY, January 14, 1890. }

President HORACE DAVIS and *Rev.* HORATIO STEBBINS:

GENTLEMEN: In accordance with your request, we, the undersigned, have examined the material formerly belonging to the California State Geological Survey, and now at Berkeley, and we append to this report a complete inventory of all this material now held in trust for the State by the Regents of the University. The collections of the survey having been declared the property of the University by the "Organic Act," approved March 23, 1868 (see Regents' Manual, p. 41, Sec. 24), do not fall within the scope of your inquiry.

The material inventoried may be classified as follows:

- I. Printed reports and maps of the State Geological Survey.
- II. Stereotyped plates of text and illustrations of the above reports.
- III. Manuscripts, notes, maps, and drawings.
- IV. Instruments and accouterments.

All this material was delivered to the Secretary of the Board of Regents in 1874. Secretary Stearns, in his report to the Board of Regents for the year ending May 31, 1875, writes: "We received the material without an inventory; it arrived and was stored at the University before the Secretary's office was moved to Berkeley, and has been placed so as to insure its preservation."

The printed reports and maps of the Geological Survey are kept for sale by the Board of Regents in accordance with the Act of 1874. These reports and maps are now contained in boxes Nos. I to XIII, stored in the University Library, and also parcels Nos. 113 to 119, inclusive, now stored in the Secretary's office. The total amount received from the sale of these reports and maps, in fifteen years, has been only \$1,521 16, and it has steadily diminished in amount from \$335 in 1874 to \$24 50 in 1889.

In addition to the articles inventoried, there were originally a number of lithographic stones of maps. These stones belonged to the engraver, but the lithographs were preserved at the expense of the Board of Regents. The following extract from the minutes of the Board will show how they were disposed of (Minutes, Vol. V, p. 253, May 23, 1884):

Regent Winans presented the following report: The committee appointed to consider and report upon the advisability of continuing the insurance upon or the purchase of certain lithographic stones in the possession of Julius Bien, of New York, beg leave to report that it is not advisable to continue the insurance nor to purchase the stones.

This report is based upon the opinion of the State Engineer, that the work is inaccurate and not correct to date.

W. T. WELCKER,
Superintendent Public Instruction.
W. T. REID.

On motion, the report was adopted.

The instruments have been turned over to the care of the Departments of Civil Engineering, Chemistry, and Physics, where they have been in

constant use for the instruction of students and the carrying on of investigations. The value of these instruments is, according to the appended inventory, about \$995, and their loss would seriously cripple these departments unless they were replaced with new ones by the Board of Regents.

In the way of accouterments, there were received two saddles, two mules, one tent, a rifle, and a shotgun. The saddles and tent have rotted long since, and the mules were sold by order of the Board several years ago. The firearms remain in the Secretary's office.

The manuscripts, notes, maps, and drawings are contained partly in boxes Nos. XIV to XVII, inclusive, now stored in the library, and partly in bundles numbered 1 to 112, and 120 to 151, in the Secretary's office. This material is in bundles, rolls, and loose sheets of all sizes and conditions. Your committee has in each case restored all articles inventoried to their original packages and numbered them on the outside in red ink. They are apparently in the same condition in which they were received.

Most of this material is of no value whatever. It is often without indorsement, or notes, or other means of identification. Much of it consists merely of tracings and reductions from published maps, which have been superseded by later and more accurate work. There are some original maps, which are of value, although most of *this* material has already been published by Professor Whitney. There are other papers, particularly some partly finished geological and topographical maps, which, although incomplete and often without indorsement or notes of any kind, would prove useful to any person intending to go over the same ground, as furnishing suggestions from which to outline a plan of examination.

We come, then, to the question: What is the best way to make available such of this material as has a value?

The Act to provide for the preservation of the material of the Geological Survey of California, which was approved March 27, 1874, reads as follows:

ARTICLE 85.

SECTION 1. It shall be the duty of the State Geologist to deliver to the President of the University of California, at Berkeley, in this State, all instruments, accouterments, furniture, property, maps, books, drawings, manuscripts, notes, engravings, lithographic stones, woodcuts, field notes, and other material of every description and nature belonging or appertaining to the Geological Survey of California; such surrender and delivery to be made without delay.

ARTICLE 86.

SEC. 2. The Regents of the University of California shall safely keep and preserve, at the said University, all the property and material referred to in section one of this Act, until such time as the Legislature may direct otherwise.

ARTICLE 87.

SEC. 3. The sum of five thousand dollars is hereby appropriated out of any money in the General Fund not otherwise appropriated, to pay the necessary cost of arranging, packing, transporting, and delivering the said property and material; and the Controller shall draw his warrant or warrants for such purpose, not to exceed said sum of five thousand dollars, when directed to do so by the State Board of Examiners, and the Treasurer shall pay the same.

ARTICLE 88.

SEC. 4. The Regents of said University shall keep on hand and offer for sale all volumes of reports and maps published by said Geological Survey; they may also, as soon as the present supply of reports and maps is exhausted, cause any portion of the same to be republished and sold at the prices now provided or that may hereafter be provided

by law; *provided*, that said republication shall be done without cost to the State; *provided further*, that the proceeds of the sale of all such maps and reports, over and above the cost of publication, shall be paid into the State Treasurer and by him credited to the School Fund of the State.

SEC. 5. This Act shall take effect immediately.

From this it appears: "Sec. 2. The Regents of the University of California *shall safely keep and preserve, at the said University*, all the property and material referred to in section one of this Act, until such time as the Legislature may direct otherwise." It is evident, therefore, that only an Act of the Legislature can authorize the withdrawal of any of this property from the University.

In view of this restriction, and in order that the manuscripts, notes, maps, and drawings of the Survey may be accessible for use and reference, your committee recommends that they should all be placed in the custody of the Librarian of the University as a library of reference, to which any responsible citizen of the State may have access, under the same rules which govern access to other reference works of value in the library; provided, that no person whatever shall be allowed to remove any of the articles from the University Library building.

In order that this may be more effectually carried out, we further recommend the construction of a sugar-pine or redwood case, with deep pigeon holes and shelves, in which the rolls may be safely stored under lock and key, in the order given in our inventory, or any other which the Librarian may prefer to make for himself. Also, that a rubber stamp with the device, "Cal. Geological Survey Material," be procured, and that each and every article, however small, shall be stamped by the Librarian before they are opened for public inspection and use.

Your committee would further recommend that the Legislature should be petitioned to transfer absolutely to the Board of Regents all the property of the State Geological Survey, which they now hold in trust, so that it may be used according to their best discretion. If this were done, it would be possible to use for purposes of exchange with other scientific bodies, the publications of the Survey, for which there is now a constantly diminishing sale, and many valuable works would be secured thereby, which it is very difficult to obtain by purchase.

With these recommendations we beg leave, most respectfully, to submit our report.

J. H. C. BONTÉ,
 Secretary of the Board of Regents.
 JOSEPH LE CONTE,
 Dept. Geology and Natural History.
 FRANK SOULÉ,
 Dept. of Civil Engineering.
 SAMUEL B. CHRISTY,
 Dept. Mining and Metallurgy.
 A. WENDELL JACKSON,
 Dept. Mineralogy, Petrography, etc.

INVENTORY OF MATERIAL OF THE STATE GEOLOGICAL SURVEY STORED IN THE UNIVERSITY
LIBRARY, DECEMBER 23, 1889.

(Boxes marked in Roman numerals in blue pencil.)

A. *Publications.* (Held for sale.)

- I-IV. Four boxes containing *Ornithology*, Vol. I, in sheets.
 V-VI. Two boxes, with 80 and 88 copies *Paleontology*, Vol. I; stitched, in good condition.
 VII. One box containing 100 copies *Paleontology*, Vol. I; stitched, in good condition.
 VIII. One box containing:
 Paleontology, Vol. I; 79 copies, stitched, in poor condition.
 Paleontology, Vol. II; 1 copy, stitched, in poor condition.
 Paleontology, Vol. I; 2 copies, bound, in poor condition.
 Ornithology, Vol. I; 4 copies, bound, in poor condition.
 IX. One box containing Yosemite Guide Book, in bundles.
 X. One box containing:
 Ornithology, Vol. I; 22 copies, cloth, in good condition.
 Ornithology, Vol. I; 17 copies, cloth, in fair condition.
 Ornithology, Vol. I; 17 copies, cloth, in bad condition.
 Paleontology, Vol. I; 6 copies, cloth, in good condition.
 Paleontology, Vol. I; 4 copies, cloth, in fair condition.
 Paleontology, Vol. II; 1 copy, cloth, in good condition.
 Paleontology, Vol. II; 1 copy, cloth, in fair condition.
 XI. One box containing Yosemite Guide Book, in bundles.
 XII. One box containing Yosemite Guide Book, in bundles, and a few in cloth.

B. *Stereotypes of Publications.*

Fifty-four unmarked boxes, with plates of text.
 Three unmarked boxes, with plates of illustrations.

C. *Miscellaneous.*

- XIII. One box containing nineteen copies of mounted map of Yosemite Valley and adjacent region. Hoffman & Gardner; 1863-7. (For sale.)
 XIV. One box containing Coast Survey tracings of San Francisco Bay.
 XV. One box containing thirty barometer tubes; some broken.
 XVI. One box maps; Wackenreuder's map of New Almaden; printed.
 County adjacent to San Francisco Bay, hand-colored for geology; no indorsement; no legend.
 Craven's map, Sonora Pass; original drawing; no notes; unfinished.
 Craven's map, Clear Lake; original drawing; no notes; unfinished.
 Map, Yosemite Valley and vicinity (Tuolumne River on north, Millerton on south, Coulterville on west, Mono Lake on east); some notes; no indorsements.
 Partial printed map of San Mateo County, 1868. Original platting of small area of Walker River and Silver Mountain; Craven.
 Plattings and tracings of small portions of the Sierras; no notes or indorsements, and in poor condition.
 XVII. Map of San Joaquin County, 1870; Jno. Wallace, surveyor; printed.
 Map of Amador County, 1866; J. M. Griffith, surveyor; printed.
 Map of Butte County, 1862; J. S. Henning, surveyor; printed.
 Map of California, 1852; C. D. Gibbs, surveyor; printed. (Rare.)
 Map of region adjacent to Yosemite Valley; mounted.

INVENTORY OF MATERIAL OF CALIFORNIA GEOLOGICAL SURVEY STORED IN THE SECRETARY'S OFFICE, DECEMBER, 1889, AND JANUARY, 1890.

(Articles marked in red ink with Arabic numerals.)

1. Minor survey MS., viz:
 - (a) Shorthand memoranda on reestablishment of survey.
 - (b) Rough pencil sketch of Stranahan's, Wrights Ferry, and Table Mountain.
 - (c) Rough pencil sketch of Heaton, Sierra County.
 - (d) Rough pencil sketch of near You Bet.
 - (e) Rough pencil sketch of Mooneys to You Bet.
 - (f) Rough pencil sketch of Little York.
 - (g) Memoranda. Le Conte's notes (?).
 - (h) Miscellaneous pencil notes.
 - (i) Colors used to designate formations in ancient auriferous gravel channels.
 - (j) Pencil calculations of contents of O'Brien's mine.
 - (k) Barometer observations, Lake Tahoe.
 - (l) Pencil sketches of blank forms for water, ditches, etc.
 - (m) Empty envelope with memoranda on outside of maps and tracings.
 - (n) Notes on triangulations, Gold Run and Smartsville.
 - (o) Two photos: Emigrant Gap Tunnel and Bear Valley.
 - (p) Memoranda of trips made in 1862.
2. MS. by Bowman on auriferous gravels.

3. Envelope containing tracings, indorsed, "of no value;" seventy-six in all, some on tracing paper, some on tracing cloth, mostly without indorsement or notes, legend, or any other means of identification.
4. Bowman's rough field notes of Coast Region:

I. Livermore.	IV. San Francisco Pliocene.
II. Napa.	V. Mission to Ocean.
III. Mt. Diablo.	VI. The Inner Gate.
5. J. G. Cooper, M.D.; Conchology of the Geological Survey of California; original MS.
6. Canals (ditches?) between Merced and Tuolumne and up to the Yosemite Valley and Big Oak Flat; two tracings.
7. Lists of Camps, 1860 to 1863, and itinerary, 1860. The camp lists are the only means of identification of a large amount of valuable specimens collected by the Survey and belonging to the University.
8. Map of C. P. R. R. Cisco to Truckee, with topography; 1,600 feet to 1 inch.
9. Route tracing, Roseville to Shasta.
10. Tracing of Central Nevada.
11. S. P. R. R. Routes through Panoche and Pacheco Passes.
12. Tracing C. P. R. R. Auburn to Colfax; 100 feet to 1 inch; topography.
13. Railroad tracing without indorsement.
14. Tracing vicinity east Humboldt Mountains.
15. Map of Monterey and vicinity; geologically colored.
16. Map of Corral Hollow; no legend.
17. Map of vicinity of Monterey; valuable.
18. Printed map of U. S. Territories from Mississippi River to the Pacific; ordered by Jefferson Davis 1853³, with scanty geological notes (colored) of little geological value.
19. Tracings of route from Grass Valley to Downieville; Amos Bowman, 1871.
20. Forty-one tracings of patented claims of California gold mines; by Amos Bowman, 1872.
21. Traverses of roads from Nevada City; scale 1 inch to the mile; Alfred Craven.
22. Thirty-eight road tracings, by Amos Bowman.
23. Rough pencil tracing of North Bloomfield Mine, by Bowman; also of part of Sierra County.
24. Three Nevada County road tracings, by Amos Bowman.
25. Original plattings of Inyo and White Mountains, by C. F. Hoffman. Topography of Owens Lake and Salinas Valley.
26. Original plattings of Inyo and White Mountain trip; C. F. H., 1870, vicinity of Mono Lake.
27. First plattings of Clear Lake.
28. Geological plan and section Spanish Peak gravel deposit, by J. A. Edman.
29. Map of route from Carson City to Humboldt Mines; August, 1862.
30. Tracing official township lines, San Joaquin Valley.
31. Four tracings official township lines, from Land Office maps.
32. Four tracings, by Amos Bowman.
33. Tracings routes and railroads, by Amos Bowman.
34. Descriptions of boundaries of various counties in California.
35. Tracing "Goddard's Sonora Pass (from?), original."
36. Seven sheets of plattings and triangulations, by Bowman & Pettee; vicinity of Smartsville and Little York.
37. Nine rough tracings, by Bowman, in vicinity of Nevada City.
38. Five tracings and five sheets, by Amos Bowman, mostly incomplete sections, in a rough form, of Pliocene rivers.
39. Original maps Tp. 16 (or 17?) N., R. 12 E. Crystal Lake, Placer and Nevada Counties; little detail.

Tp. 16 (17?) N., R. 13 E.; little detail; near Cisco.
Tp. 16 N., R. 9 E.; little detail.
Tp. 16 (17?) N., R. 14 E.; little detail; near C. P. R. R.; including Lytton & Finney's Camp and Palisade Lake.
40. Tp. 16 N., R. 5 E. Geography and Geology (?). Mouth of Yuba River; Amos Bowman, 1870.

Tp. 16 N., R. 6 E. Well executed topography; vicinity of Smartsville; no indorsement.
Tp. 16 N., R. 7 E. Contour map, with shading; some detail. Squirrel Creek and Penn Valley.
Tp. 16 N., R. 8 E. Original map, Grass Valley and Nevada City; contours and some shading, in detail.
Tp. 15 N., R. 5 E. Rough map in pencil; some contours and a little shading.
- Map of Grass Valley.
41. Thirty-six tracings of townships, etc., by Bowman and others; without indorsement.
42. Five miscellaneous tracings, by Bowman & Wakenreuder.

Three sheets of rough notes of Pliocene channels of the Yuba, of little value.
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43. Eleven copies of township maps, from Government surveys.
44. Eleven fragments of original plattings of Mount Diablo Range. Marked "Valuable;" in bad condition.
45. MS. tablings of roads in Nevada County. "Surveyed by Bradley."
46. Seven printed county maps (Cal.); very bad condition.
47. Six fragments of colored field notes (geological); vicinity of San Francisco Bay.

48. Miscellaneous collection of tracings, etc.; reductions from existing maps to a scale of six miles to the inch.
49. Tracing proposed line of Chico and Humboldt road; badly torn.
50. Brush topography between Yosemite Valley and Mono Lake; marked, "First trip; not reliable for detail."
51. Goddard's original map topography of Sonora Pass and Mokelumne Hill; marked, "Worked up."
52. Original plats Sierra Nevada, Mount Lyell and Mount Whitney; two sheets and two tracings; triangulations, but few details.
53. Tracing of topography of the boundary of Oregon and California, under Commissioner Wilson, General Land Office; brush topography.
54. State of Nevada, tracings; reduction to eighteen miles to the inch.
55. Tracing, Del Norte Copper District.
56. Tracing, coast line, near San Diego, and reduction of Bay of San Francisco.
57. Tracings, Canals of South Fork of the American River, Placerville.
58. Tracing (brush topography) of region south of Mokelumne River.
59. Tracing of triangulations of vicinity of Lake Bigler (Tahoe); brush topography; no indorsement.
60. Hand-colored geological map, vicinity Monterey; no legend.
61. Hand-colored geological map, vicinity Corral Hollow; no legend.
62. Hand-colored geological section artesian well, near Stockton; no indorsement.
63. Map of Cosumnes and Michigan Bar Canal, through El Dorado, Amador, and Sacramento Counties, Cal.; G. F. Deetken, C.E.
64. Holt's map California and Nevada; 1869.
65. Report on general characters and products of portions of Southern California, by J. G. Cooper, M.D.; thirty-five pages MS.
66. Report on explorations of islands off the southern coast of California, by J. G. Cooper; twenty-eight pages MS.
67. Report of zoological collections of the survey, by Cooper; twenty-eight pages MS.
68. Eight pages MS. Geographical distribution north range of West Coast birds, Alaska.
69. Thirty pages MS. List of Reptiles and Fishes.
70. Printed copy Geological Survey of California.
- Geographical catalogue of the Mollusca.
71. Smithsonian catalogue, North American Mammals.
72. Smithsonian catalogue, North American Birds.
73. Geological Survey of California catalogue, Invertebrate Fossils, West Slope United States; Part I. J. G. Cooper. Printed with notes.
74. Three tracings, Sonora Pass road.
75. Original platting, topography of vicinity of Angels Camp. C. F. Hoffman.
76. Two tracings, Nevada County, from Sacramento to Marysville, to Lake Bigler and Carson. Bishop, C.E.
77. Original topographical map, portion of Tuolumne and Calaveras Counties.
78. Original map, with brush topography, San Buenaventura County and Sulphur Mountain. (Oil region.) A. N. Wilson.
79. N. and S. section Pilot's Peak to Knights Ferry. H., 2 m. to 1 in.; V., 800 feet to 1 m.
80. Two tracings, Nevada County, etc. Atwood.
81. Upper Mariposa Big Trees; two original maps; 1867.
82. Five original maps of Hetch Hetchy Valley and Tuolumne Cañon and vicinity; unfinished.
83. Original platting, near Clear Lake; in pencil. W. M. Gabb.
84. Vertical section profiles, Marysville Buttes to Mount Davidson, with elevations.
85. Plans of Princeton Mills, Mariposa County, and three other miscellaneous plans.
86. Feather River, Plumas County; meandered by Keddie; Crescent Mills to Oroville.
87. Sketches, Lander and Nye Counties, Nevada. Read and Barker.
88. Six tracings from maps of Arizona; compiled in Williamson's office in 1886. Used in Pacific States map.
89. Boundary between Plumas and Sierra Counties, by A. W. Keddie.
90. Miscellaneous profiles; no legend.
91. Old topographical sketch of the Washoe region.
92. Tracing of surveys near Rancho Santa Ana, Los Aquillas, by W. F. Lewis.
93. Reduction of U. S. surveys near Georgetown and Michigan Bluff, to scale of one half inch to one mile. C. F. Hoffman. Marked, "Valuable; not worked up."
94. Geological section in San Mateo County.
95. Ditches along N. Yuba and near Camptonville; one tracing.
96. Three fragments of printed maps, vicinity of San Francisco Bay, with some geological notes.
97. Township tracings, vicinity of Auburn.
98. Miscellaneous memoranda, mostly in shorthand.
99. Small "Specimen Maps."
100. Approximate contours of lower portion of cañon, of Strawberry Valley, site of proposed dam and reservoir.
101. Tracings from Central California map, made for Pacific States map, 1866.
102. Sonora Pass. Goddard. Marked, "Worked up."
103. Survey boundary line between California and Nevada; scale, six miles to the inch; 1863; by Butler Ives, Com. Nev. Ter.; J. F. Houghton, Surveyor-General of California; J. F. Kidder, engineer in charge of survey.

104. Wilson and Fohr's map of Nevada; corrected.
105. Gravel mining region of Sierra Nevada, vicinity of Marysville, Nevada City, etc.; original of map already published by Professor Whitney.
106. Geological map of California; partly colored.
107. Gravels of Sierra Nevada; general map; well executed.
108. Reduction of Amador County maps.
109. Plattings of Desert Creek.
110. Tracing geological map, Mono Lake to Monitor Mountains.
111. Tracing geological map, Walker River region; slight notes.
112. Partly colored geological map of Lower California.
113. One hundred and twenty-five copies, thin paper, S. W. cor. maps Central California. (Held for sale.)
114. One hundred and thirty-five copies, thin paper, S. E. cor. maps Central California. (Held for sale.)
115. Forty-six copies, thin paper, N. half maps region of San Francisco Bay. (Held for sale.)
116. Fifty-one copies, thin paper, S. half maps region of San Francisco Bay. (Held for sale.)
117. Ninety-six copies, thick paper, S. W. cor. maps Central California. (Held for sale.)
118. One hundred and one copies, thick paper, S. E. cor. maps Central California. (Held for sale.)
119. Seven copies Geological Survey maps of California on thick paper; 1873. (Held for sale.)
120. Bundle of thirty-seven fragments or mutilated copies of printed maps.
121. Original (?) map, Monterey to Santa Barbara Channel, by Geological Survey of West Coast of California.
122. Bundle of forty-four miscellaneous printed maps; mostly duplicates, and many mutilated.
123. Stearns on Upper Tuolumne Cañon; several copies; printed.
124. North Pacific Ocean Coast Chart, 1849. E. & G. W. Blunt, N. Y.
125. Humboldt County map, 1865. Doolittle. Mounted.
126. Mounted map of region forty miles around San Francisco Bay. Ransome; 1860.
127. Britton & Rey's map of California; third edition, showing routes of the Geological Survey.
128. Map of copper region, Del Norte County. R. B. Randall; 1863.
129. Copper mines, Calaveras County. Handy & Wallace; 1864.
130. Map of Lower Oregon and Upper California. Thomas Tennent; 1853.
131. Geological map (no geology) of California, by Whitney; thirty-six miles to one inch.
132. Las Mariposas estate, Max Strobel, engineer; with veins marked.
133. Lot of fragments of miscellaneous maps.
134. Land office map of California and Nevada; 1866.
135. Cravens' work on Sweetwater Mountains; marked "Worked up on Central Map."
136. Photograph of map of Mount Diablo region.
137. Three tracings; two of Mokelumne River, and one of Humboldt River; latter badly torn.
138. Nineteen photographs, illustrating Hayden's Survey of the Territories.
139. Two photographic portraits.
140. Photo of topographical map of Eureka Lake Water Company's Improvements, 1863, by H. Hochholzer.
141. Geological sketch map, very rough, with no means of identification, possibly vicinity of Washoe Peak.
142. Map of property of Tide Land Reclamation Company. J. T. Gibbes; 1869.
143. Barometrical and thermometrical profiles at Smartsville.
144. Thirty-two U. S. Coast Survey maps of coast lines in California and Oregon.
145. County map, Amador County. J. M. Griffiths; 1866.
146. Sheet with some triangulations; unknown locality; no notes.
147. Description of panorama from summit of Mount Davidson.
148. Tracing in vicinity of Lake Mono.
149. Pencil sketch of coast line.
150. Township sketch in vicinity of Honey Lake.
151. Map of Comstock Mining District, marked "U. T." Sherwood & Dewey; no date; torn in half.

LIST OF INSTRUMENTS RECEIVED FROM THE CALIFORNIA GEOLOGICAL SURVEY, AND NOW IN USE IN THE DEPARTMENTS OF CIVIL ENGINEERING, PHYSICS, AND CHEMISTRY.

Seven Greene's mountain barometers, No. 12, at \$60	\$420 00
Seven sling cases for same, at \$10	70 00
One tripod for suspending same	10 00
Two aneroid barometers, at \$35	70 00
One mountain transit, at \$325	325 00
Two magnetic compasses, at \$50	100 00
Total	\$995 00

In the Secretary's office, one rifle and one shotgun.

NOTES ON THE LICK ASTRONOMICAL DEPARTMENT OF THE UNIVERSITY OF CALIFORNIA.

PERSONNEL OF THE LICK OBSERVATORY.

The organization of the Lick Observatory is:

HORACE DAVIS, LL.D.	President of the University.
EDWARD S. HOLDEN, LL.D.	Director and Astronomer.
SHERBURNE W. BURNHAM, A.M.	Astronomer.
JOHN M. SCHAEPPERLE, C.E.	Astronomer.
J. E. KELLER, A.B.	Astronomer.
E. E. BARNARD, A.M.	Astronomer.
A. J. BURNHAM	Secretary.
JOHN McDONALD	Machinist.
JOSEPH ROBAN	Janitor.
CHRIS. MCGUIRE	Laborer.
HUGH KENNEDY	Laborer.

VISITORS TO THE OBSERVATORY.

The following regulations for visitors to the Observatory are in force:

HOURS FOR VISITORS TO THE LICK OBSERVATORY.

The Observatory buildings will be open to visitors during office hours every day in the year. Upon their arrival, visitors will please go at once to the visitors' room and register their names.

An hour or so can be profitably occupied in viewing the various instruments, and the rest of the stay can be well spent in walks to the various reservoirs, from which magnificent views of the surrounding country can be had. At least an hour and a half of daylight should be allowed for the drive from the Summit to Smith Creek. There are no hotel accommodations at the Summit.

Admission of Visitors at Night.

For the present, visitors will be received at the Observatory to look through the great telescope every Saturday night, between the hours of seven and ten, and at these times only.

Whenever the work of the Observatory will allow, other telescopes will also be put at the disposition of visitors on Saturdays between the same hours (only).

At 10 P.M. the Observatory will be closed to visitors, who should provide their own conveyance to Smith Creek, as there is no way of lodging them on the mountain.

It is expected by setting apart these times for visitors (which allow freer access to the Lick Observatory than is allowed to any other observatory in the world) that all interested may be able to arrange their visits in conformity to them; and that the remaining hours of the week will be kept entirely uninterrupted, in order that the Astronomers may do the work upon which the reputation and the good name of the Observatory entirely depend.

About seven thousand persons per year visit the Observatory. Those who come in the daytime are shown through the various buildings, and the uses of the different instruments are explained to them. Whenever the sky is clear they are shown a planet or a star (in the daytime) through the 12-inch equatorial. On Saturday nights the number of visitors ranges from forty to two hundred and fifty. Each person is shown the most interesting celestial objects through the 36-inch and the 12-

inch equatorials. The whole force of the Observatory is on duty at this time, and as long as visitors remain.

The Senior Classes in Astronomy, in various California Colleges, have been specially invited to visit the Observatory on special evenings set apart for them.

Lectures by the Astronomers have been given at various places. The Astronomical Society of the Pacific (which now has about two hundred and fifty members) holds three meetings a year at Mount Hamilton.

In these (and other) ways the Lick Observatory is made directly useful to the public of California, and it cannot fail to have an important place in the intellectual advancement of the State and of the whole country.

This is not the place to speak of the more strictly scientific activity of the institution. It may not be inappropriate, however, to state that since June 1, 1888, the Astronomers of the Observatory have printed more than one hundred and forty separate memoirs and articles in the various scientific journals.

METEOROLOGICAL OBSERVATIONS AT MOUNT HAMILTON.

In order to exhibit the nature of a severe winter at Mount Hamilton, I select the following:

METEOROLOGICAL OBSERVATIONS FOR THE MONTHS OF NOVEMBER AND DECEMBER, 1889, AND JANUARY AND FEBRUARY, 1890.

(From November first to fifteenth, the weather was mostly clear or fair. The present record commences with the sixteenth. The mean annual barometer is 25.766 inches.)

DATE.	Mean Daily Ba- rometer— Inches.	Rain or Melted Snow— Inches.	FOR TWENTY-FOUR HOURS ENDING AT NOON.		Remarks.
			Maximum Velocity of the Wind— Miles.	Total Move- ment of the Wind— Miles.	
November 16, 1889...	25.81	-----	60	159	Clear.
November 17, 1889...	25.77	-----	50	142	Fog.
November 18, 1889...	25.61	.73	37	542	Rain.
November 19, 1889...	25.80	.91	28	382	Rain.
November 20, 1889...	25.82	1.66	17	259	Rain.
November 21, 1889...	25.87	.15	24	312	Clear.
November 22, 1889...	25.69	.14	30	638	Fog.
November 23, 1889...	25.77	.60	28	282	Cloudy.
November 24, 1889...	25.85	-----	10	119	Clear.
November 25, 1889...	25.95	-----	30	285	Clear.
November 26, 1889...	25.81	-----	33	564	Fair.
November 27, 1889...	25.63	-----	60	880	Cloudy.
November 28, 1889...	25.58	-----	60	821	Cloudy.
November 29, 1889...	25.60	.06	50	841	Cloudy.
November 30, 1889...	25.60	.21	33	510	Cloudy.
Sums	-----	4.46	-----	-----	-----

DATE.	Mean Daily Ba- rometer— Inches.	Unmelted Snow— Inches.	FOR TWENTY-FOUR HOURS ENDING AT NOON.		Remarks.
			Maximum Velocity of the Wind— Miles.	Total Move- ment of the Wind— Miles.	
December 1, 1889	25.57	.70	26	772	Rain.
December 2, 1889	25.71	.34	33	767	Fog.
December 3, 1889	25.70	.29	30	326	Fog.
December 4, 1889	25.57	.63	43	756	Rain.
December 5, 1889	25.52	.53	60	775	Rain.
December 6, 1889	25.49	1.01	37	561	Rain.
December 7, 1889	25.71	1.50	50	736	Rain and fog.
December 8, 1889	25.62	.94	18	290	Rain.
December 9, 1889	25.82	.21	37	503	Fog.
December 10, 1889	25.60	.59	50	530	Rain.
December 11, 1889	25.51	.52	43	705	Rain and fog.
December 12, 1889	25.56	.04	17	231	Fog.
December 13, 1889	25.71	.17	14	226	Fog.
December 14, 1889	25.74	-----	17	164	Fog.
December 15, 1889	25.78	-----	10	167	Clear.
December 16, 1889	25.77	-----	43	372	Cloudy.
December 17, 1889	25.72	.58	24	245	Rain and partly clear.
December 18, 1889	25.69	.08	43	513	Snow.
December 19, 1889	25.83	.71	30	459	Rain.
December 20, 1889	25.79	1.53	60	400	Rain and fog.
December 21, 1889	25.54	.05	60	-----	Fog.
December 22, 1889	25.45	.19	-----	-----	Snow.
December 23, 1889	25.31	.04	-----	-----	Snow.
December 24, 1889	25.41	.58	-----	-----	Rain and fog.
December 25, 1889	25.65	.78	-----	-----	Rain and cloudy.
December 26, 1889	25.71	.06	22	501	Fog.
December 27, 1889	25.75	.03	20	254	Fair.
December 28, 1889	25.82	.08	26	287	Fog.
December 29, 1889	25.95	.35	24	291	Rain and cloudy.
December 30, 1889	25.74	.10	28	386	Fog.
December 31, 1889	25.68	.56	33	459	Rain and fog.
Sums	-----	13.19	-----	-----	-----
January 1, 1890	25.64	-----	15	269	Fog.
January 2, 1890	25.50	.60	50	-----	Rain.
January 3, 1890	25.35	-----	-----	-----	Snow.
January 4, 1890	25.39	-----	-----	-----	Snow.
January 5, 1890	25.57	.11	-----	-----	Fog.
January 6, 1890	25.68	.30	-----	-----	Fair.
January 7, 1890	25.85	.22	-----	-----	Clear.
January 8, 1890	25.82	.14	22	412	Clear.
January 9, 1890	25.76	-----	28	253	Cloudy.
January 10, 1890	25.65	.18	17	202	Clear.
January 11, 1890	25.82	-----	22	342	Clear.
January 12, 1890	25.86	1.29	33	445	Rain.
January 13, 1890	25.85	.06	-----	190	Fair.
January 14, 1890	25.83	-----	50	436	Clear.
January 15, 1890	25.66	-----	60	482	Snow.
January 16, 1890	25.58	.41	27	509	Snow.
January 17, 1890	25.54	.69	30	-----	Snow.
January 18, 1890	25.67	.07	-----	-----	Fog.
January 19, 1890	25.84	.05	-----	-----	Fog.
January 20, 1890	25.81	.01	-----	-----	Fair.
January 21, 1890	25.64	.01	-----	-----	Fair.
January 22, 1890	25.67	-----	-----	-----	Fog.
January 23, 1890	25.65	-----	60	-----	Rain.
January 24, 1890	25.59	2.09	62	237	Rain.
January 25, 1890	25.57	1.10	24	253	Rain.
January 26, 1890	25.76	.11	-----	541	Clear.
January 27, 1890	25.82	-----	-----	-----	Clear.
January 28, 1890	25.89	-----	-----	612	Fair.
January 29, 1890	25.83	.37	-----	345	Rain.
January 30, 1890	25.86	.12	12	145	Cloudy.
January 31, 1890	25.88	-----	15	183	Clear.
Sums	-----	7.93	-----	-----	-----

DATE.	Mean Daily Ba- rometer— Inches.	Rain or Melted Snow— Inches.	FOR TWENTY-FOUR HOURS ENDING AT NOON.		Remarks.
			Maximum Velocity of the Wind— Miles.	Total Move- ment of the Wind— Miles.	
February 1, 1890	25.93	-----	12	203	Fair.
February 2, 1890	25.93	-----	14	257	Fair.
February 3, 1890	25.93	-----	13	110	Fair.
February 4, 1890	25.97	-----	24	378	Clear.
February 5, 1890	25.94	-----	22	349	Fair.
February 6, 1890	25.90	-----	19	311	Clear.
February 7, 1890	25.89	-----	13	147	Fair.
February 8, 1890	25.83	-----	13	100	Clear.
February 9, 1890	25.83	-----	33	526	Clear.
February 10, 1890	25.96	-----	24	345	Clear.
February 11, 1890	26.05	-----	10	112	Clear.
February 12, 1890	25.87	-----	43	395	Clear.
February 13, 1890	25.67	-----	24	298	Clear.
February 14, 1890	25.74	-----	37	541	Fair.
February 15, 1890	25.59	-----	70	-----	Fog.
February 16, 1890	25.37	1	22	-----	Fog.
February 17, 1890	25.41	7	*	-----	Snow.
February 18, 1890	25.39	12	-----	-----	Snow.
February 19, 1890	25.49	13	-----	-----	Show.
February 20, 1890	25.49	14	-----	-----	Snow.
February 21, 1890	25.50	9	-----	-----	Snow.
February 22, 1890	25.72	8	-----	-----	Fair.
February 23, 1890	25.67	-----	-----	-----	Fair.
February 24, 1890	25.62	-----	-----	-----	Fog.
February 25, 1890	25.53	2	-----	-----	Fog and snow.
February 26, 1890	25.61	-----	-----	-----	Clear.
February 27, 1890	25.81	-----	-----	-----	Clear.
February 28, 1890	25.76	-----	-----	-----	Fair.
Sums	-----	66	-----	-----	-----

*After this date the anemometer was frozen so that no record was obtained.

The total *snowfall* was for December, twenty-nine inches, for January, fifty-one inches, for February, sixty-six inches; or *more than twelve feet of snowfall* for these three months. Snow fell as late as April 18, 1890. During five days of February absolutely no connection with the outside world was *possible*. In the one hundred and twelve days, from November fifteenth to March eighth, the stage only came to the Observatory thirty-six times.

CONDITION OF THE OBSERVATORY BUILDINGS.

The severe winter of 1889-90 has been very hard upon the buildings of the Observatory. In particular all the brick work has suffered greatly. The frost has removed a great deal of the mortar from exposed brick walls, and it will be necessary to repoint all joints in much exposed portions, as well as to repaint most of the walls. Wherever the bricks were thoroughly soaked in oil before they were laid (as in the walls of the great dome and of the brick dwelling houses), the mortar and the paint has stood very well. Wherever this precaution was neglected, the walls are in a very bad condition and must be repointed and repainted, as I have said.

Main Building.—The condition of its walls is described above. Its tin roof has suffered greatly, and wherever the old lead flashings were left (as about the skylights, chimneys, etc.) there have been bad leaks,

as it was evident there must necessarily have been. The worst places have lately been repaired, but the roof will leak until all such defective arrangements are made right. This is an important matter, as the instruments and the clocks are exposed to the danger of rusting. One spot of rust on the works of a delicate astronomical instrument will ruin it.

Great Dome.—This building has stood the severe trial of the winter in an admirable manner. The movable parts must be repainted in 1890. The moving-floor and the rams and water-engines are in good condition, though they need a thorough inspection and overhauling.

The small dome is in excellent condition.

The other buildings on the summit are also in good condition. The brick dwelling house is so likewise, except for a few leaks in its roof. The windmill has been twice broken by storms during 1889-90, and it will need to be replaced shortly.

New Buildings Required.—It is very desirable to erect a woodshed, 32x8 feet, at the springs, to keep the wood for the steam engine dry. One of the same size should be provided at the summit for the use of the Observatory. It would be a great accommodation to the many visitors to the Observatory if a shelter for their horses against the blazing sun could be provided.

The Tomb of James Lick.—Nothing has been done to make the surroundings of the tomb of the generous founder of the Observatory suitable and appropriate. This matter is still in the hands of the Lick Trustees.

CONDITION OF THE INSTRUMENTS.

The instruments are all in capital condition, and are all in active use. The work spoken of in my last report (pp. 129-130), has mostly been done. There still remain the following essential matters:

First—A water wheel should be provided to wind the weight of the driving clock (six hundred pounds) of the greatest equatorial. At present this is wound by the Observer every two hours. From this severe labor he must return with steady nerves (if possible), to making delicate micrometer measurements at the telescope.

Second—The circles of the great telescope are now (and have always been so far) useless, for lack of arrangements to light them by electricity. The Lick Trustees intended to provide these, but did not do so.

Third—A double image micrometer should be provided for the great telescope.

Fourth—A control for the driving clock of the 12-inch telescope is needed.

An appropriation from the principal of the Lick Observatory Endowment Fund should be made to cover these four items.

ADDITIONS TO THE INSTRUMENTS.

The National Academy of Sciences has lent to the Observatory a powerful spectroscope, which will be used to investigate the spectrum of the zodiacal light.

An appropriation of \$200 has been made from the Thompson Fund of the American Association for the Advancement of Science, which

sum is to be used in the construction of a special spectroscope for the examination of variable stars.

A large eye-piece, with a field of view sufficient to take in the whole moon, has been fitted to the great telescope for the use of visitors.

The U. S. Naval Observatory of Washington has lent to the Observatory a 6½-inch photographic telescope and mounting.

Hon. C. F. Crocker has authorized the construction of an equatorial mounting, to carry the Willard photographic lens, which he presented to the Observatory in 1889.

Hon. William M. Pierson, of San Francisco, has lent to the Observatory a Dallmeyer photographic lens, which will be temporarily mounted alongside of the Willard lens.

In this way, by the gifts and by the loans of friends of the Observatory, the small deficiencies in its equipment are gradually being supplied.

POST OFFICE AT MOUNT HAMILTON.

On the recommendation of the Regents of the University a Post Office has been established at the Lick Observatory under the name of *Mount Hamilton*. Prof. S. W. Burnham has been appointed Postmaster.

SOLAR ECLIPSE OF DECEMBER 21, 1889.

In the summer of 1889 Hon. C. F. Crocker generously volunteered to bear the expense of an expedition to Cayenne, South America, to observe the total solar eclipse of December twenty-first. The Regents of the University authorized Messrs. Burnham and Schaeberle to do the work according to the programme prepared by the Director, and provided most of the instruments. The Superintendent of the U. S. Naval Observatory at Washington, Captain R. L. Phythian, U. S. Navy, was kind enough to lend to the expedition a 6½-inch photographic equatorial, and F. G. Bluin, Esq., of East Oakland, put the whole equipment of his observatory at our disposition. From his instruments a sextant was selected, and used to determine the latitude and longitude of the eclipse station.

Parties were sent to observe this eclipse as follows:

I. By the Government of the United States to Africa.

II. By the British Government to Africa.

III. By the British Government to South America.

IV. By the French Government to South America.

V. By the Lick Observatory to South America.

Parties I and II failed on account of cloudy weather. Parties III, IV, and V were, on the whole, successful, though the weather was not altogether satisfactory.

From what is already known of the results, it is certain that the photographs of the Lick Observatory party are the most satisfactory of any secured at this eclipse, and this success reflects credit upon all concerned in the expedition.

The results of the work will be printed (in octavo) at the State Printing Office.

GOLD MEDAL AWARDED TO THE LICK OBSERVATORY AT THE PARIS EXPOSITION.

A gold medal was awarded to the Lick Observatory at the Paris Exposition for its exhibit of astronomical photographs.

BRICK RETAINING WALLS.

As recited in my previous report (page 130), the rock walls built by the Lick Trustees are rapidly crumbling into dust. They should be replaced by brick walls as soon as practicable. The slopes of the summit are gradually sinking, and they must be planted with vines, etc., to consolidate them. In places the outer edges of the summit level are from two to three feet lower than they were a year ago. This is a very practical matter, and it demands immediate attention.

WATER SUPPLY.

There is little to add to the complete account given in my last report (p. 130).

The springs during the winter supply twenty thousand to twenty-five thousand gallons daily, which now goes to waste for lack of storage capacity, which ought to be provided. During the summer the supply falls to four hundred gallons daily. The daily necessary expense is from one thousand to one thousand two hundred gallons. Every year the astronomers of the Observatory have been forced to use some of the stored rain water for domestic purposes. This water has passed many times through the hydraulic engines and rams, and is covered with a thick film of machine oil; and it invariably produces more or less sickness when it is used. Under the present circumstances it *must* be used. It is not fair to the officials of the Observatory to subject them and their families to this hardship, when the remedy (increased capacity of storage reservoirs) can be so readily and so cheaply attained.

Water Pipes, etc.—The system of under and over-ground pipes (which is several miles in extent) is being simplified and put in good condition by the workmen of the Observatory as fast as possible. The kind of simplification referred to may be understood when I say that a single valve and fifteen feet of pipe, lately inserted, saves more than fifty miles of walking to the machinist each and every year. The fire plugs and hose are regularly inspected each week.

BOUNDARIES OF THE RESERVATION.

Many of the corners have been permanently marked with iron posts, and this work will be continued. The Legislature should be asked for an appropriation of \$2,700 to put a continuous fence about the whole reservation (one thousand nine hundred acres).

GIFTS TO THE LICK OBSERVATORY.

Besides the gifts (and loans) of instruments previously mentioned, the following have been received, for which the thanks of the University are gratefully returned:

BRASHEAR, J. A.—Photographs.
 CENTURY, Editor of—Electrotype.
 HIMMEL UND ERDE—Electrotypes.
 HOLDEN, E. S.—Nine crayon drawings of Jupiter.
 WHITNEY, R. W.—One duplicator, or copying machine.

PERIODICALS RECEIVED BY THE LIBRARY OF THE LICK OBSERVATORY.

A full list of periodicals received by gift or otherwise is given in my last report (page 134). This list need not be repeated here, especially as it will be fully set forth in the catalogue of the library, which will shortly be printed at the State Printing Office as an appendix to the report of the Solar Eclipse of December, 1889.

Books have been received by gift from the following persons:

DONOR.	Books.	Pam- phlets.
Auton, Dr. F.	1	2
Baltimore, Peabody Institute		1
Berlin, Minister of Public Instruction	1	
Boyden, Seth		1
Burnham, S. W.		2
Cambridge, Harvard College		1
Chicago, Trustees of Newberry Library		1
Coimbra, Universidade de		1
Cook, Joseph		1
Cooley, N. M.	1	
Copenhagen, Royal Academy of Sciences		5
Dames, Felix L.		1
Ebert, Herrman		1
Evanston, Ill., Northwestern University		1
Friedlander, R.		4
Greenwich, Royal Observatory of	1	
Havorford, College Observatory of		1
Holden, E. S.	7	150
Holetschek, Dr. J.		3
Hoit, Hon. Ira G.		1
Jacob, B.		1
Karlsruhe Observatory		1
Kiel Observatory	1	
Knobel, E. B.	1	
Königsberg, Sternwarte		3
Kroecker, L.		1
Küstner, Dr. F.		1
Langley, S. P.		1
Leipzig Astronomische Gesellochatt		7
Lund, Observatory of	1	
Lyons, Observatory of	1	
Marth, A.		4
Monck, W. H. S.		3
Natal Observatory	1	
Nerger, Dr. K.		1
Oxford, Radcliffe Observatory	1	
Paris, L'Ecole Polytechnique	1	
Prime, C. S.		1
Purdue University		1
Schaeberle, J. M.	12	
Stonyhurst College		1
Taylor, J. W.		1
Telbutt, Jno.		2
Thiele, T. N.		1
Tokyo Observatory	1	
Washington, Signal Service	1	
Weinek, —	1	
Wien Observatory	2	
Wolf, M.		2
Wolf, Dr. Rudolph		1
Zenger, Ch. V.		7
Totals	35	217

SUPREME COURT DECISION.

IN BANK.

[Filed November 18, 1887.]

AURELIA PFEIFFER, PLAINTIFF AND APPELLANT,

VS.

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, DEFEND-
ANT AND RESPONDENT.

} No. 11,772.

This is an action to quiet title to a certain piece of land; to enjoin defendant from diverting any water from said land; and to recover damages for past diversion of such water. The action was tried in the Court below without a jury, and judgment went for defendant. Plaintiff appeals from the judgment and from an order denying her motion for a new trial.

The material facts in the case—omitting certain deraignments of title, and other matters which need not be recited here—are these:

1. In 1865, plaintiff became the owner in fee of a certain undivided interest in “two thousand nine hundred acres or thereabouts” of mountain or hill land in Alameda County, California. This land was a part of the Rancho San Antonio, granted by the Mexican Government in 1823 to Louis Peralta, and confirmed to his sons and grantees by a patent of the United States Government, dated February 10, 1877. Plaintiff continued to be the owner of said undivided interest until the year 1875, when a certain partition suit entitled “Le Roy vs. Gwinn et al.” was instituted in the proper District Court for the purpose of terminating the co-tenancy of the various owners of undivided interests in said land, and apportioning it among said owners in severalty. A judgment was rendered in said partition suit on the twenty-first of August, 1875, by which the particular land described in the complaint in this present action, and which is designated as “Plot O,” was set off in severalty to plaintiff. She was put into possession of said “Plot O” by the Sheriff, and has been in possession ever since, except so far as her possession has been interrupted by defendant as hereinafter stated.

2. On August 10, 1864, Owen Simmons and wife, being also the owners in fee of an undivided interest in said two thousand nine hundred acres of land, conveyed the same to the College of California, a corporation, who remained the owner thereof until June 1, 1870, when it conveyed said undivided interest to the defendant herein, the Regents of the University of California. At the time of said conveyance by Simmons and wife to the College of California, said Simmons was in the actual occupancy of that part of said land described in the complaint which contains the springs of water about which this litigation has arisen—although he was only an owner, as tenant in common with others, of an undivided interest in the whole tract of two thousand nine hundred acres, which fact was well known to the college. After the

conveyance to the college, the latter remained in occupancy of said piece of land until its conveyance to the defendant on June 1, 1870. This particular part of the land was wet and springy. It has several springs on it, which usually sunk into the ground within short distances from their sources. In 1866 the college commenced to clear out two of said springs; and within a year or two, by excavations, etc., it developed a stream of water, which, by means of flumes, pipes, reservoirs, etc., it converted and conveyed entirely away from said undivided lands onto other lands held by said college in severalty. The college, and its successor, the defendant, continued to so divert and convey said water from 1866 until after the judgment in said partition suit in 1875, without any interference or complaint by any of their co-tenants. In developing this water, and in erecting works for its diversion, the college and the defendant expended about \$17,000. After the judgment in partition, which set off this piece of land in severalty to plaintiff, she protested against any further diversion of the water by defendant, demanded payment for it, etc. She commenced this action within a day of the expiration of five years after the issuance of the patent.

3. On the twenty-eighth day of November, 1870, the defendant executed to Mary E. Brayton a conveyance of all its interest in said undivided tract of two thousand nine hundred acres of mountain land. Said conveyance also describes three other tracts of land not involved in this controversy, and has in it the following clause: "Excepting and reserving out of and from this conveyance, and out of the premises firstly, secondly, and fourthly above described, the right of the water arising upon or flowing across the same, so far as it shall be needed for the University of California, and the right to enter upon said land for the purpose of constructing and laying the necessary pipes and making the same available, the same to be exercised in such manner as not to interfere with the use and occupation of the land for cultivation, and to do no damage to the crops thereon." Mary E. Brayton afterwards conveyed to H. G. Livermore, who was made a party to said partition suit, and had set off to him a certain part of said two thousand nine hundred acres designated as "plot H." (The word "fourthly" in said clause of reservation refers to said undivided interest in said two thousand nine hundred acres.)

4. There is another fact which must be here stated, because, while it has no direct reference to the land or water described in the complaint, it has a bearing on the question, Who were necessary parties to the partition suit? Z. B. Heywood, being the owner of an undivided interest in said tract of two thousand nine hundred acres, and having entered upon the occupancy of a certain part of it called "Ramsey Ranch," on the fourth day of September, 1860, executed a deed to the President and Board of Trustees of the College of California, by which he gives, grants, bargains, sells, and quitclaims to them "the exclusive right in perpetuity to enter upon my land known as the Ramsey ranch, being a portion of the Rancho San Antonio in the county of Alameda, California, and thereon to collect and take away, with the reservations hereinafter mentioned, the waters of the various springs which open into and along the gulch and ravine, and its branches that debouch at or near the point where the present road crosses the boundary line between Sections 83 and 84, as laid down in Kellersberger's map; and also of the said springs above said ravine that rise to the southward of and run past

and near my present farm house, and for the purposes aforesaid to take, hold, use, occupy, and clear up so much of said land as may be proper and necessary for collecting said waters in basins or reservoirs, or for flooding by dams, and for canals and conduits and the laying of pipes; and the right at all times to enter upon so much of said lands as their convenience may require for all the purposes aforesaid, and for repairs or viewing the same, and the right to protect said waters from waste or damage by such works, and in such manner as they may judge best." The reservations referred to are not material. Heywood remained owner of said undivided interest until the commencement of said partition suit; was made a party thereto; and had set off to him in severalty a part of said two thousand nine hundred acres designated as "Plot P," said "Plot P" including the said Ramsey ranch. On the twenty-sixth day of November, 1869, the said President and Board of Trustees of the College of California conveyed to "the State of California, represented by the Regents of the University of California," all the rights and property (if any) which were conveyed to the former by said deed of September 4, 1860, executed by said Heywood as aforesaid. Neither the State of California nor the defendant was made a party to said partition suit.

5. The defendant continued to divert water from said "Plot O" from the time plaintiff became several owner thereof until the trial of this present action, and to convey the same to its University lands, which never were part of said two thousand nine hundred acres of mountain land. The Court below finds that for three years and ten months immediately preceding the trial the defendant so diverted and used ten thousand gallons per day, in addition to water sold by it to others, for which it received \$4,804, but it is not found how much plaintiff was injured by such diversion. It appears from the findings that defendant has taken the water from only two springs on said land, and that there are several other springs on the land, which seem not to have been developed or used in any way by plaintiff.

Upon these facts the Court below rendered judgment for defendant, upon the sole ground—as stated in the first finding—that by the reservation in said deed from the defendant to Mary E. Brayton, and by said deed of the College of California to the State of California, represented by the Regents of the University of California, conveying to the latter the rights conveyed to the former by said Z. B. Heywood, as aforesaid, the defendant and the State of California acquired and retained such interests in said two thousand nine hundred acres of land as made them necessary parties to said suit for partition; and that, not having been made such parties, the judgment in said suit setting off said "Plot O" in severalty to plaintiff was and is void as against the defendant.

In taking this view of the case we think that the Court below erred. It is not necessary to discuss the question whether, if respondent had been the sole owner of the land at the time of its deed to Mrs. Brayton, the reservation would have left in respondent a mere personal privilege or right in gross, or an interest in the land itself capable of partition. At the time of the execution of said deed respondent was the owner of only an undivided interest in the land as tenant in common with the appellant and others; and, as such tenant in common, it had no power to convey to a stranger, or to reserve to itself after parting with the fee, the right to divert water entirely away from said land. A tenant in common cannot create an easement or servitude upon the common land.

In Goddard on the Law of Easements, on pages 93 and 94, the result of the authorities on the subject is correctly stated as follows: "So the grantor must be the *sole* owner of the fee. One joint owner or tenant in common cannot create an easement in the common estate as against his co-tenant, though probably he would be himself estopped to dispute a grant thus made. For the same reason one tenant in common cannot, when conveying his own interest in the common property, create *by reservation* a personal and separate easement over the same for the benefit of his adjoining separate property."

In Boston F. Co. vs. Condit, 19 N. J. Eq. Rp. 394, it was held that "a grantee of the right to dig ores from one tenant in common cannot call for a partition of the premises." See also Kent's Com., Vol. 3, p. 554, 11th ed.; Freeman on Co-tenancy, Sec. 198; Adams vs. Briggs Iron Co., 7 Cushing, 361; Marshall vs. Trumbull, 28 Conn. 183.

We do not understand counsel for respondent as denying this to be the rule clearly established by the general authorities, and they cite no cases to the contrary. But they argue that, logically, the rule ought to be different in this State on account of certain decisions made by this Court (about another matter) in Stark vs. Barrett, 15 Cal. 361; Gates vs. Salmon, 35 Cal. 576, and some other cases which follow them. It was quite customary at one time for individual tenants in common of large Mexican grants to convey, or to undertake to convey, their interests in particular parts of the common land by metes and bounds, called "special locations;" and the decisions last above referred to simply held, first, that the grants of such special locations were good as against naked trespassers; and, second, that they were not absolutely void as against the co-tenants of the grantor, but were taken subject to the co-tenants' right of partition of the whole tract, and might be lost to the grantee when such partition took place. These decisions are admitted to have been in conflict with many authorities of high standing, and were based, no doubt, to some extent, on equitable considerations growing out of particular circumstances; and they should not be pushed further than the limits of their express terms. But there were no questions about *easements* in those cases. Whatever interest the grantor undertook to convey, was *all* his interest or estate in the *whole* land described in the conveyance. There was no attempt to create or reserve a right to dig for minerals in the land, or to cut wood on it, or to take water from it, or to have a way over it—no attempt to divide up the very *body* of the land and distribute it around. There is nothing, therefore, in those decisions that alters the well established rule as above stated, which determines the main point in the case at bar.

Of course, the deed from Heywood to the College of California, and the deed from the latter to the respondent, or the State of California, are upon the same footing with the "reservation" in the deed from respondent to Brayton. Neither the respondent nor the State of California had an estate or interest in the land, and neither was a necessary party to the suit for partition.

The statutes founded on appropriation, acquiescence, estoppel, and the statutes of limitations, were not maintained. The findings on those issues, as we understand it, were all in favor of appellant; and respondent has not appealed.

Our conclusion is that, upon the findings, judgment should have been rendered for appellant according to the prayer of her complaint, except

as to damages—about which there is no finding. But as appellant now waives all claims for damages, there appears to be no necessity for a new trial. The judgment is therefore reversed, and the Superior Court is directed to enter judgment for plaintiff according to the prayer of the complaint, without damages.

McFARLAND, J.

We concur:

SEARLS, C. J.

THORNTON, J.

McKINSTRY, J.

SHARPSTEIN, J.

APPENDICES TO THE ANNUAL REPORT

OF THE

SECRETARY TO THE BOARD OF REGENTS.

STATEMENT OF RECEIPTS AND DISBURSEMENTS FOR THE FISCAL YEAR
ENDING JUNE 30, 1890.

RECEIPTS.	
Revenue.....	\$208,271 27
D. O. Mills Endowment interest.....	5,090 53
Michael Reese Library Fund interest.....	3,219 93
University Medal Fund interest.....	181 73
Edward Tompkins Endowment interest.....	239 53
Sales from Land Grant of 150,000 Acres.....	28,214 90
State fees.....	244 00
Students' deposits—Chemical Laboratory.....	1,288 03
Students' deposits—Mining Laboratory.....	158 10
Students' deposits—Physical Laboratory.....	262 50
From Treasurer of United States on account of Agricultural Experiment Station Fund.....	18,750 00
Excess payments.....	1,360 66
Insurance—returned premiums.....	3,363 06
Pioche Donation interest.....	108 00
Rents from Palmer House.....	720 00
Library fines.....	1 15
Donation to library.....	10 00
College of Agriculture—return on payroll for March, 1889.....	2 00
Bills receivable—canceled mortgage notes.....	97,047 50
Cash balance on hand June 30, 1889.....	84,921 43
\$453,454 32	
DISBURSEMENTS.	
Bills receivable.....	\$151,500 00
D. O. Mills Endowment—salary of professor.....	3,999 96
Excess payments.....	3,708 15
State fees.....	175 00
Toland Medical College—	
Assessment for street improvements.....	\$146 45
Redemption of lot.....	8 34
Palmer House—repairs.....	154 79
Land Administration—returned deposits.....	241 69
Revenue—rebate on land interest.....	195 00
Chemical Laboratory building.....	460 08
Salaries—Appendix No. 1.....	18,240 45
Administration—Appendix No. 2.....	138,217 44
Agricultural Experiment Stations—Appendix No. 3.....	15,201 19
College of Agriculture—Appendix No. 4.....	10,849 34
College of Chemistry—Appendix No. 5.....	6,954 22
College of Civil Engineering—Appendix No. 6.....	2,936 21
College of Mechanics—Appendix No. 7.....	303 99
College of Mining—Appendix No. 8.....	435 94
Department of Lick Observatory—Appendix No. 9.....	681 50
Department of Military Science—Appendix No. 10.....	4,580 77
Department of Mineralogy—Appendix No. 11.....	259 31
Department of Physics—Appendix No. 12.....	273 16
Department of Physical Culture—Appendix No. 13.....	416 80
Library—General Fund—Appendix No. 14.....	2,153 97
Reese Library—Appendix No. 15.....	2,469 69
German Library—Appendix No. 16.....	2,490 33
Museum—Appendix No. 17.....	8 88
University site improvements—Appendix No. 18.....	825 91
University Printing Office—Appendix No. 19.....	2,981 69
Cash balance on hand June 30, 1890.....	724 45
82,014 41	
\$453,454 32	

TRIAL BALANCE—JUNE 30, 1890.

	Dr.	Cr.
Agricultural Experiment Stations.....		\$1,494 20
Buildings.....	\$482,082 65	
Bills receivable.....	850,140 00	
Cash.....	82,014 41	
Consolidated Perpetual Endowment Fund.....		818,770 62
D. O. Mills Endowment.....		91,922 16
Diploma Fund.....		20 00
Edward Tompkins Endowment.....		3,858 15
Excess payments.....		22,494 77
German Library.....		447 25
German Savings and Loan Society.....	1,341 51	
Humboldt Savings and Loan Society.....	151 09	
Lick Observatory Fund.....		90,000 00
Land Administration.....		734,249 85
Land Agent of the University.....	5,202 79	
Oakland Bank of Savings.....	7,498 60	
F. L. A. Pioche Donation.....		2,053 22
Revenue.....		58,576 98
Michael Reese Library Fund.....		54,349 76
State appropriations.....		2,751 25
Students' deposits.....		4,455 60
State University Fund.....		102,309 84
State Treasurer.....	1,067,500 00	
State fees.....		89 00
San Francisco Savings Union.....	39,535 11	
Security Savings Bank.....	32,989 09	
Toland Medical College.....		296 71
University Medal Fund.....		3,313 54
Union Savings Bank.....	33,404 63	
Chemical Laboratory building.....	18,240 45	
Palmer House.....		478 31
Bonté, J. H. C., Secretary—Contingent Fund.....	486 37	
Caminetti, A., Patron Amador Station—Contingent Fund.....	150 00	
Davis, Horace, President—Contingent Fund.....	200 00	
Holden, E. S., Director Lick Observatory—Contingent Fund.....	500 00	
Hilgard, E. W., Director A. E. S.—Contingent Fund.....	150 00	
Moore, B. F., Patron Tulare Station—Contingent Fund.....	150 00	
Salaries, expenses, and receipts to January 1, 1889.....		629,955 40
Webster, J. V., Patron Paso Robles Station—Cont. Fund.....	150 00	
	\$2,621,886 70	\$2,621,886 70

STATEMENT OF BONDS AND MORTGAGES—JUNE 30, 1890.

DESCRIPTION.	Date of Maturity.	Rate of Interest.	Par Value.	Annual Interest.
<i>Bonds.</i>				
State Capitol.....	Jan. 2, 1893.	6	\$676,500 00	\$40,590 00
State of California.....	Jan. 2, 1893.	6	141,000 00	8,460 00
City and County of San Francisco—				
School bonds.....	July 1, 1894.	6	30,000 00	1,800 00
Park and Avenue.....	Jan. 1, 1898.	6	50,000 00	3,000 00
Park Improvement.....	Apr. 1, 1904.	6	1,000 00	60 00
Dupont Street.....	July 1, 1897.	—	20,000 00	—
Montgomery Avenue.....	Jan. 1, 1903.	—	22,000 00	—
County of Santa Clara.....	July 1, 1894.	7	3,000 00	210 00
Alameda School.....	Sept. 4, 1898.	6	8,000 00	480 00
Marin County.....	May 5, 1896.	7	50,000 00	3,500 00
Tehama County.....	July 2, 1903.	5	29,500 00	1,475 00
Fresno County.....	Jan. 1, 1898.	7	12,500 00	875 00
Plumas County.....	Oct. 3, 1901.	6	9,000 00	540 00
Kern County.....	Nov. 1, 1900.	7	15,000 00	1,050 00
Total invested in bonds.....			\$1,067,500 00	\$62,040 00
Diverted funds.....		6	\$79,750 00	\$4,785 00
<i>Mortgages.</i>				
Oakland real estate.....			\$88,500 00	\$5,685 00
San Francisco real estate.....			405,000 00	21,700 00
Merced County real estate.....			131,640 00	8,791 60
Stockton real estate.....			25,000 00	1,656 25
Berkeley real estate.....			6,000 00	360 00
Alameda real estate.....			76,000 00	5,675 00
Marin County real estate.....			50,000 00	3,000 00
Tehama County real estate.....			25,000 00	1,750 00
Solano County real estate.....			23,000 00	1,610 00
Mendocino County real estate.....			20,000 00	1,400 00
Total investment in mortgages.....			\$850,140 00	\$51,627 85
RECAPITULATION.				
Total investment in bonds.....			\$1,067,500 00	\$62,040 00
Total investment in mortgages.....			850,140 00	51,627 85
Diverted funds.....			79,750 00	4,785 00
Totals.....			\$1,997,390 00	\$118,452 85

SEGREGATION OF BONDS AND MORTGAGES.

	Par Value.	Interest.
Consolidated Perpetual Endowment Fund {		
Diverted funds.....	\$79,750 00	\$4,785 00
Bonds.....	977,500 00	56,935 00
Mortgages.....	708,814 94	43,222 59
Lick Observatory Fund, bonds.....	90,000 00	5,105 00
Michael Reese Library Fund, mortgages.....	50,000 00	3,062 50
D. O. Mills Endowment, mortgages.....	85,865 76	4,990 60
Medal Fund, mortgages.....	3,000 00	180 00
Agassiz Professorship Fund, mortgages.....	607 78	42 55
Pioche Donation Fund, mortgages.....	1,851 52	129 61
	\$1,997,390 00	\$118,452 85

STATE TAX OF ONE CENT ON EVERY \$100 VALUATION—FOR THE YEAR
ENDING JUNE 30, 1890.

October 5, 1889—Controller's warrant.....	\$9,353 04
April 24, 1890—Controller's warrant.....	91,852 85
	<hr/> \$101,205 89

UNIVERSITY MEDAL FUND.				Cr.
1874.			1873.	
July 30..	To cash—Medal to F. Otis	\$125 00	Mar. 13.	By donations
Oct. 10..	To cash—Medal to J. M. Whitworth	125 00	June 30.	By interest
Oct. 10..	To cash—Medal to F. H. Whitworth	125 00	Dec. 31.	By interest
1875.			1874.	
July 16..	To cash—Medal to T. F. Barry	125 00	June 30.	By interest
1876.			Dec. 31.	By interest
Nov. 30..	To cash—Medal to D. B. Huntley	125 00	1875.	
Nov. 30..	To cash—Medal to F. L. Button	125 00	June 30.	By interest
1878.			Dec. 31.	By interest
Oct. 31..	To cash—Medal to Theodore Gray	125 00	1876.	
Oct. 31..	To cash—Medal to Jos. Hutchinson	128 50	June 30.	By interest
1879.			1877.	
Aug. 31..	To cash—Medal to Fremont Morse	128 50	Jan. 31.	By interest
1880.			July 30.	By interest
July 31..	To cash—Medal to Mary Hawley	128 50	1878.	
1883.			Jan. 31.	By interest
July 31..	To cash—Medal to W. W. Deamer	125 00	July 31.	By interest
1884.			1879.	
Aug. 30..	To cash—Medal to C. A. Ramm	125 00	Jan. 31.	By interest
1885.			July 31.	By interest
July 14..	To cash—Medal to C. B. Wakefield	125 00	1880.	
1886.			Jan. 31.	By interest
July 31..	To cash—Medal to Frank Fisher	125 00	July 31.	By interest
1887.			1881.	
July 31..	To cash—Medal to Jacob Samuels	125 00	Jan. 31.	By interest
1889.			July 31.	By interest
May 15..	To cash—Medal to J. E. Beard	125 00	1882.	
1889.			Jan. 30.	By interest
June 30..	To cash—Medal to H. C. Moffitt	125 00	July 31.	By interest
1890.			1883.	
June 30..	To balance	3,313 54	Jan. 31.	By interest
			July 31.	By interest
			1884.	
			Jan. 31.	By interest
			July 31.	By interest
			1885.	
			Jan. 31.	By interest
			July 31.	By interest
			1886.	
			Jan. 31.	By interest
			July 31.	By interest
			1887.	
			Feb. 28.	By interest
			July 31.	By interest
			1888.	
			June 30.	By interest
			1889.	
			Jan. 1.	By interest
			June 30.	By interest
			1890.	
			June 30.	By interest
			June 30.	By Union Savings B'k.
			June 30.	By Union Savings B'k.
		\$5,449 04		

Dr.		EDWARD TOMPKINS ENDOWMENT FUND.		Cr.	
1874.			1872.		
Jan. 2.	To sundries	\$148 60	June 18.	By cash	\$100 00
Aug. 14.	To cash	100 00	1873.		
1887.			Mar. 13.	By cash	100 00
Nov. 10.	To cash	75 50	June 30.	By interest	2 35
1888.			Dec. 31.	By interest	5 04
Aug. 31.	To cash	21 00	1874.		
1889.			June 30.	By interest	6 08
Jan. 10.	To cash	4 20	Aug. 19.	By cash	100 00
			Nov. 14.	By cash	100 00
			Dec. 31.	By interest	9 27
			1875.		
			June 30.	By interest	15 22
			Dec. 11.	By cash	125 00
			1876.		
			June 30.	By interest	22 66
			Dec. 18.	By cash	125 00
			1877.		
			Jan. 31.	By interest	39 50
			July 31.	By interest	29 03
			1878.		
			Jan. 31.	By interest	28 64
			Mar. 31.	By cash	125 00
			July 31.	By interest	30 00
			1879.		
			Jan. 31.	By interest	32 57
			May 31.	By cash	125 00
			July 31.	By interest	34 14
			1880.		
			Jan. 31.	By interest	36 69
			June 30.	By cash	125 00
			July 31.	By interest	32 55
			1881.		
			Jan. 31.	By interest	37 28
			July 31.	By interest	32 63
			July 31.	By cash	175 00
			1882.		
			Jan. 31.	By interest	36 45
			Jan. 31.	By cash	175 00
			July 31.	By interest	37 56
			1883.		
			Jan. 31.	By interest	39 69
			Jan. 31.	By cash	175 00
			July 31.	By interest	41 93
			1884.		
			Jan. 31.	By interest	42 80
			Feb. 29.	By cash	175 00
			July 31.	By interest	46 45
			1885.		
			Jan. 31.	By interest	48 71
			Mar. 31.	By cash	175 00
			July 31.	By interest	53 79
			Oct. 31.	By cash	200 00
			1886.		
			Jan. 31.	By interest	58 44
			July 31.	By interest	60 24
			1887.		
			Feb. 28.	By cash	261 98
			July 31.	By interest	66 87
			1888.		
			Jan. 31.	By interest	68 30
			Feb. 1.	By cash	15 17
			Mar. 1.	By cash	15 17
			April 1.	By cash	15 17
			May 1.	By cash	15 17
			June 1.	By cash	15 17
			July 1.	By cash	15 17
			July 1.	By interest	23 91
			Aug. 1.	By cash	15 17
			Sept. 1.	By cash	15 17
Amount carried forward		\$349 30	Amount carried forward		\$3,502 67

Dr.

EDWARD TOMPKINS ENDOWMENT FUND—Continued.

Cr.

1890.	Amount brought forward	\$349 30	1888.	Amount brought forward	\$3,502 67
June 30..	To balance	3,858 15	Oct. 1.	By cash	15 17
			Nov. 1.	By cash	15 17
			Dec. 5.	By cash	150 00
			Dec. 5.	By cash	15 17
			Dec. 31.	By interest	47
			1889.		
			Jan. 1.	By cash	15 17
			Feb. 1.	By cash	15 17
			Mar. 1.	By cash	15 17
			April 1.	By cash	15 17
			May 1.	By cash	15 17
			May 1.	By cash	164 50
			June 1.	By cash	15 17
			June 1.	By interest	4 32
			July 31.	By cash	15 17
			Aug. 31.	By cash	16 72
			Sept. 30.	By cash	20 70
			Oct. 31.	By cash	8 62
			Nov. 30.	By cash	3 54
			Dec. 31.	By cash	3 54
			Dec. 31.	By Union Savings Bank	4 65
			1890.		
			Jan. 31.	By cash	153 54
			Feb. 28.	By cash	3 54
			Mar. 31.	By cash	3 54
			Apr. 30.	By cash	3 54
			May 31.	By cash	3 54
			June 30.	By cash	3 54
			June 30.	By Union Savings Bank	4 78
		\$4,207 45			\$4,207 45

DISBURSEMENTS—FOR THE YEAR ENDING JUNE 30, 1890.

APPENDIX No. 1—*Salaries.*

College of Agriculture.....	\$12,844 18
College of Chemistry.....	12,021 84
College of Civil Engineering.....	11,532 89
College of Letters.....	27,277 73
College of Mechanics.....	12,787 31
College of Mining.....	9,036 05
Department of Lick Observatory.....	17,240 62
Department of Physical Culture.....	2,499 96
Library.....	3,300 00
Museum.....	1,500 00
Administration.....	22,736 90
University Printing Office.....	720 00
Agricultural Experiment Stations.....	4,719 96

\$138,217 44APPENDIX No. 2 A—*Administration—Fuel.*

Seventy-eight tons Brymbo coal—T. H. Henderson.....	\$776 10
Eight tons Seattle coal—T. H. Henderson.....	67 60
Three tons 1,120 pounds Anthracite coal—T. H. Henderson.....	53 37
Six tons 1,120 pounds Wellington coal—T. H. Henderson.....	71 50
Fifteen gunnie sacks—T. H. Henderson.....	1 50
Seventy grain sacks—T. H. Henderson.....	3 50

\$973 57APPENDIX No. 2 B—*Administration—Equipment and Repairs.*

	Marks.
Thirty copies "Xenophon's Historia Græcia"—J. R. McDonald & Co.....	21.60
Thirty copies "Plato's Dialogi"—J. R. McDonald & Co.....	14.40
Thirteen copies "Plato's Dialogi"—J. R. McDonald & Co.....	12.00
Twelve copies "Plato's Dialogi"—J. R. McDonald & Co.....	12.00
Thirty copies "Xenophon's Anabasis"—J. R. McDonald & Co.....	18.00
Thirty copies "Homer's Iliad"—J. R. McDonald & Co.....	18.00
Twenty-five copies "Xenophon's Commentari"—J. R. McDonald & Co.....	9.00
Fifteen copies "Herodotus"—J. R. McDonald & Co.....	25.00
Twelve copies "Herodotus"—J. R. McDonald & Co.....	15.00
Thirteen copies "Homer's Odysse"—J. R. McDonald & Co.....	15.00
Twelve copies "Homer's Odysse"—J. R. McDonald & Co.....	15.00
Thirteen copies "Thucydides"—J. R. McDonald & Co.....	30.00
Twelve copies "Thucydides"—J. R. McDonald & Co.....	30.00
Thirteen copies "Demosthenes Orationes"—J. R. McDonald & Co.....	15.00
Twelve copies "Demosthenes Orationes"—J. R. McDonald & Co.....	15.00
Twenty copies "Æschylus"—J. R. McDonald & Co.....	24.00
Thirteen copies "Euripides"—J. R. McDonald & Co.....	30.00
Twelve copies "Euripides"—J. R. McDonald & Co.....	30.00
Twenty copies "Sophocles"—J. R. McDonald & Co.....	24.00
Twenty copies "Lysias"—J. R. McDonald & Co.....	19.20
Ten copies "Æschines"—J. R. McDonald & Co.....	7.20
Five copies "Aristophanes"—J. R. McDonald & Co.....	12.00
Freight to Hamburg—J. R. McDonald & Co.....	4.20
Receiving, cartage, shipping—J. R. McDonald & Co.....	3.50
Freight to San Francisco—J. R. McDonald & Co.....	48.75
Consul's certificate—J. R. McDonald & Co.....	10.70
Commission—J. R. McDonald & Co.....	18.30
Case and packing—J. R. McDonald & Co.....	4.50

Marks 384.35

\$92 84

Twelve pounds cotton sash cord—Dunham, Carrigan & Hayden Co.....	4 20
Half dozen mortise knob locks—Dunham, Carrigan & Hayden Co.....	8 03
Half dozen L. P. butts—Dunham, Carrigan & Hayden Co.....	2 25
One dozen transom catchers—Dunham, Carrigan & Hayden Co.....	83
Ten pounds wire brads, 1x17—Dunham, Carrigan & Hayden Co.....	3 56
Twenty pounds wire brads, 2x12—Dunham, Carrigan & Hayden Co.....	
Twenty pounds wire brads, 2½x10—Dunham, Carrigan & Hayden Co.....	3 33
Five gross screws, 1½x14—Dunham, Carrigan & Hayden Co.....	
Five gross screws, ¾x4—Dunham, Carrigan & Hayden Co.....	16 50
Two gross screws, ¾x9—Dunham, Carrigan & Hayden Co.....	
Five hundred feet 1x12x16 surfaced redwood—Henry W. Taylor.....	32 00
One thousand feet 1x6x16 T. and G. redwood—Henry W. Taylor.....	35 17
One thousand and five feet 1½x4x12 redwood—Henry W. Taylor.....	

DISBURSEMENTS—Continued.

Five hundred and thirteen feet 4x4x20 redwood—Henry W. Taylor	\$9 23
Five hundred feet 4x12 surfaced redwood—Henry W. Taylor	16 50
One thousand feet 1x4x16 T. and G. redwood—Henry W. Taylor	32 00
One thousand feet 1x6 rough redwood—Henry W. Taylor	18 00
One thousand and three feet 2x4x16 selected pine—Henry W. Taylor	23 07
One thousand feet 1x4x16 T. and G. pine—Henry W. Taylor	34 00
One hundred feet 1x4 rough pine—Henry W. Taylor	1 80
Mill work on redwood—Henry W. Taylor	2 50
Cartage to mill—Henry W. Taylor	50
Labor for month of July	32 00
Five sets door jambs, 21 feet—Niehaus Bros. & Co.	111 25
Three sets door jambs, 22 feet—Niehaus Bros. & Co.	
Two hundred and sixty-five feet 4x12 base—Niehaus Bros. & Co.	
Eight transom bars—Niehaus Bros. & Co.	
Two hundred and fifty-six feet round casing—Niehaus Bros. & Co.	
Five hundred and twelve feet band molding—Niehaus Bros. & Co.	
Two hundred and fifty-six feet Rd. band—Niehaus Bros. & Co.	
Two hundred and fifty-six feet bead—Niehaus Bros. & Co.	
Five hundred and six feet band—Niehaus Bros. & Co.	
Two hundred and fifty feet casing—Niehaus Bros. & Co.	
Two hundred and fifty-six feet band back—Niehaus Bros. & Co.	38 25
Four doors—Niehaus Bros. & Co.	
Two hundred and fifty feet grounds—Niehaus Bros. & Co.	
Sixteen feet astragal—Niehaus Bros. & Co.	
Twenty-four feet threshold—Niehaus Bros. & Co.	
Twenty-five feet bead mold—Niehaus Bros. & Co.	
Three Tr. 2x3, 21 oz.—Niehaus Bros. & Co.	
One thousand feet spruce—Niehaus Bros. & Co.	
Four hundred feet sugar pine—Niehaus Bros. & Co.	
Five gallons carriage varnish—Heuter Bros. & Co.	17 50
Five gallons turpentine—Heuter Bros. & Co.	2 75
One gallon gasoline—Heuter Bros. & Co.	35
Five pounds lump pumice—Heuter Bros. & Co.	30
Five pounds beeswax—Heuter Bros. & Co.	1 75
Six sash tools—Heuter Bros. & Co.	1 00
Six fitches—Heuter Bros. & Co.	75
One flat duster—Heuter Bros. & Co.	76
One paint burner—Heuter Bros. & Co.	5 25
Three scraping tools—Heuter Bros. & Co.	1 35
Five hundred pounds Pioneer lead—Whittier, Fuller & Co.	30 00
One hundred pounds Golden ocher—Whittier, Fuller & Co.	8 00
Fifty gallons boiled oil—Whittier, Fuller & Co.	36 25
Five gallons turpentine—Whittier, Fuller & Co.	2 60
Five pounds venetian red—Whittier, Fuller & Co.	2 25
One hundred pounds Prince's metallic—Whittier, Fuller & Co.	2 25
Five pounds pure raw sienna—Whittier, Fuller & Co.	65
Two and one half dozen pair butts—Dunham, Carrigan & Hayden Co.	75
Two and one half dozen cupboard locks—Dunham, Carrigan & Hayden Co.	12 50
One gross hat hooks—Dunham, Carrigan & Hayden Co.	1 91
One half dozen knob locks—Dunham, Carrigan & Hayden Co.	6 90
One half dozen L. P. butts—Dunham, Carrigan & Hayden Co.	2 48
One half dozen dead locks—Dunham, Carrigan & Hayden Co.	1 75
Two dozen key blanks—Dunham, Carrigan & Hayden Co.	2 00
Case—Dunham, Carrigan & Hayden Co.	25
Painting—James Andrew	108 50
Carpenter work—William Hodgson	98 00
Labor for month of August	54 80
Covering North Hall steps with zinc, as per contract—J. M. McNamara	99 35
Plastering in North Hall, as per contract—H. L. Whitney	115 00
Plumbing in North Hall, as per contract—J. M. McNamara	18 00
Ten gallons wax—F. M. Farwell	20 00
One tack hammer—Justinian Caire	25
Assorted files—Justinian Caire	1 50
Seven tripods—Thomas Day & Co.	70
One dozen burners—Thomas Day & Co.	50
Labor and expenses—Thomas Day & Co.	6 75
Five sockets—J. M. McNamara	60
Services of painter—John Andrew	24 50
Services of carpenter—W. Hodgson	24 50
Services of carpenter—W. Hodgson	94 50
Services of painter—John Andrew	91 00
Labor for month of September	49 00

DISBURSEMENTS—Continued.

Eight automatic water-closets—Sanitary Plumbing Co.	\$240 00	
Connections—Sanitary Plumbing Co.	35 00	
Repairs and new basin—Sanitary Plumbing Co.	7 00	
	\$282 00	
Rebate on old closets	12 00	\$270 00
One basin cock—J. M. McNamara		44 00
One 1-inch stop—J. M. McNamara		
One 1-inch stop—J. M. McNamara		
Twenty-two feet 1½-inch pipe—J. M. McNamara		
Thirty-six feet 3-inch leader—J. M. McNamara		
Repairing closets—J. M. McNamara		
Three hundred and seventy-seven yards cocoa matting—McGovern & Cahill	254 48	
Eighty-six yards B. B. carpet—McGovern & Cahill	118 25	
One yard oil cloth—McGovern & Cahill	50	
One yard oil cloth—McGovern & Cahill	50	
Five yards B. B. carpet—McGovern & Cahill	6 88	
One brush mat—McGovern & Cahill	2 50	
Four Smyrna rugs—McGovern & Cahill	16 00	
Three hundred pounds Pioneer lead—Whittier, Fuller & Co.	18 00	
Forty pounds putty—Whittier, Fuller & Co.	1 00	
Twenty gallons linseed oil—Whittier, Fuller & Co.	14 00	
Ten gallons blackboard slating—Whittier, Fuller & Co.	30 00	
Five gallons carriage varnish—Whittier, Fuller & Co.	20 00	
One thousand feet 3x4 redwood—Henry W. Taylor	27 00	
Five hundred feet 2x8 redwood—Henry W. Taylor		
One thousand feet 1x4x16 T. and G. pine—Henry W. Taylor	31 00	
One thousand feet 2x12 redwood—Henry W. Taylor	18 00	
Eight hundred and eighty feet 1x12x16 redwood—Henry W. Taylor	29 04	
One hundred feet 1x6 pine—Henry W. Taylor	1 80	
One hundred and sixty-seven feet 1x8 redwood—Henry W. Taylor	3 01	
One hundred feet 1x12x20 stepping—Henry W. Taylor	4 00	
Mill work—Henry W. Taylor	2 00	
One thousand shingles—Henry W. Taylor	2 00	
Six bars castile soap—G. W. Armes	2 25	
One and one third dozen dust brushes—G. W. Armes	\$9 33	
One and two thirds dozen floor brushes—G. W. Armes	25 00	
One half dozen chamois skins—G. W. Armes	2 75	
	\$37 08	
Less 15 per cent	5 55	31 53
Two dozen brooms—G. W. Armes	\$7 00	
One dozen dust pans—G. W. Armes	1 50	
Two dozen car dusters—G. W. Armes	18 00	
	\$26 50	
Less 20 per cent	5 30	21 20
One dozen coal hods—G. W. Armes	\$7 50	
One dozen fire shovels—G. W. Armes	1 85	
	\$9 35	
Less 40 per cent	3 74	5 61
One dozen base knobs—Pierce & Co.	70	
Ten yards muslin—Raphael Weill & Co.	1 50	
Nine pounds detail paper—Edward Denny & Co.	1 10	
Six hundred cubic feet of gas—Oakland Gas Co.	1 65	
One hundred and seventy feet redwood—Niehaus Bros. & Co.	6 80	
One office chair—Jos. Fredericks & Co.	7 00	
Two hundred pounds asphaltum—R. A. Kershaw	3 00	
One thousand six hundred cubic feet of gas—Oakland Gas Co.	4 40	
One B. B. carpet—Schlueter & Volberg	12 50	
Plumbing in North and South Halls—J. M. McNamara	16 00	
One dozen night latches—Dunham, Carrigan & Hayden Co.	20 00	
Four dozen key blanks—Dunham, Carrigan & Hayden Co.	3 25	
One dozen wardrobe locks—Dunham, Carrigan & Hayden Co.	6 00	
One dozen pair narrow butts—Dunham, Carrigan & Hayden Co.	40	
Six gross screws—Dunham, Carrigan & Hayden Co.	1 02	
One dozen pair brass hinges—Dunham, Carrigan & Hayden Co.	60	
One dozen pair iron butts—Dunham, Carrigan & Hayden Co.	50	

DISBURSEMENTS—Continued.

One gross brass screws—Dunham, Carrigan & Hayden Co.	\$0 39
One Cairo rug—C. M. Plum & Co. Upholstery Co.	21 50
One Damascus rug—C. M. Plum & Co. Upholstery Co.	16 00
Services of painter—James Andrew	84 00
One Bradford stove—M. De La Montanya	16 00
Twenty joints stove-pipe—M. De La Montanya	7 00
One corrugated elbow—M. De La Montanya	75
One bevel elbow—M. De La Montanya	75
One ventilating tube—M. De La Montanya	1 00
Sheet zinc—M. De La Montanya	1 50
Iron fenders—M. De La Montanya	3 00
Damper and collar—M. De La Montanya	35
Labor putting up—M. De La Montanya	3 00
Service of carpenter—A. H. Broad	7 00
Labor, as per October payroll	54 00
Three 4-foot tables—Geo. H. Fuller	22 50
Three oak chairs—Geo. H. Fuller	18 00
Four library chairs—Geo. H. Fuller	15 00
Four bookcases—Geo. H. Fuller	30 00
Two flat-top desks—Geo. H. Fuller	36 00
One bookcase—Geo. H. Fuller	18 00
One Cairo rug—C. H. Plum & Co. Upholstery Co.	21 50
One Bradford stove—M. De La Montanya	16 00
Sheet zinc—M. De La Montanya	1 50
Labor and cartage—M. De La Montanya	2 50
One thumble—J. W. Savage	40
Six key blanks—D. Siesbuttel	1 50
Services of painter—James Andrew	5 00
Eighteen feet ash lumber—White Brothers	2 00
One door bell—Huntington-Hopkins Co.	2 00
Three quarters barrel lime—J. W. Savage	1 50
Eight hundred cubic feet gas—Oakland Gas Co.	2 20
One thousand one hundred cubic feet gas—Oakland Gas Co.	3 05
Services of painter—James Andrew	42 00
Labor for month of November	52 00
Services of painter—James Andrew	42 00
One hundred and fifty chairs—long rod—California Furniture Mfg. Co.	250 00
Tables on arms of same	112 50
Three thousand seven hundred cubic feet gas—Oakland Gas Co.	9 25
Five thousand cubic feet gas—Oakland Gas Co.	10 00
Labor for month of December	51 50
One top desk—Geo. H. Fuller	18 00
One bookcase—Geo. H. Fuller	18 00
One 4-foot table—Geo. H. Fuller	7 50
One chair—Geo. H. Fuller	9 00
Twenty sacks of sawdust—Berkeley Planing Mill	3 00
Twelve pounds of lead waste—Berkeley Lumber Yard	1 20
Two pounds of fittings—Dalziel & Moller	30
One ½-inch globe valve—Dalziel & Moller	1 95
One 1-inch globe valve—Dalziel & Moller	90
One union valve—Dalziel & Moller	40
One plug	10
Length stove-pipe—S. D. Thurston	30
Twenty-two feet S. G. hickory—Waterhouse & Lester	3 52
Repairing basin—J. M. McNamara	2 50
One dozen cast-steel calipers—Justinian Caire	8 50
Labor for month of January	52 00
One hundred feet chalk gutter—Niehaus Bros. & Co.	3 95
Three sets casters—Pierce & Co.	2 95
Stove-pipe and elbow—Jeffress, Mitchell & Co.	2 25
One mimeograph—Samuel Hill Co.	20 00
Eight and one third yards Brussels carpet—Schlueter & Volberg	12 50
Six and two thirds yards Napier matting—Schlueter & Volberg	5 00
Two thousand nine hundred cubic feet gas—Oakland Gas Co.	7 25
Four thousand cubic feet gas—Oakland Gas Co.	10 00
Labor for month of February	48 00
Four bookcases, per agreement—Niehaus Bros. & Co.	280 00
One plain bookcase, per agreement—Niehaus Bros. & Co.	60 00
Thirty-six feet pine and cedar	6 40
Twenty-one feet hand rail—Niehaus Bros. & Co.	3 50
Two hundred feet cove—Niehaus Bros. & Co.	
One garland trap—J. M. McNamara	2 50
Solder and coal—J. M. McNamara	50

DISBURSEMENTS—Continued.

Help—J. M. McNamara	\$2 00
Two gate hooks and eyes—J. M. Savage	05
Two thumb latches—J. M. Savage	50
Two draw pulls—J. M. Savage	10
Moving and replacing stove, per contract—J. M. McNamara	8 25
Sixty-two days labor on bell tower—R. McKillican	248 00
Lumber on bell tower—R. McKillican	57 33
Tinning on bell tower—R. McKillican	12 14
Mill work on bell tower—R. McKillican	88 25
Hardware on bell tower—R. McKillican	9 30
Hoisting bell on bell tower—R. McKillican	115 00
Painting on bell tower—R. McKillican	36 82
One thousand and twenty feet surfaced redwood—Henry W. Taylor	33 66
Cartage and mill work—Henry W. Taylor	2 50
Four thousand feet redwood—Henry W. Taylor	60 00
One Bradford stove—M. De La Montanya	16 00
Ten joints stove-pipe—M. De La Montanya	3 00
One joint corrugated elbow—M. De La Montanya	65
One joint damper—M. De La Montanya	25
Labor and cartage—M. De La Montanya	4 00
One dozen Yale locks—Justinian Caire	12 00
One dozen bolt plates—Justinian Caire	1 20
Four thousand one hundred cubic feet gas—Oakland Gas Co.	10 25
Three joints stove-pipe—J. M. McNamara	75
One joint elbow—J. M. McNamara	25
Labor on same—J. M. McNamara	1 00
One light pendant—J. M. McNamara	2 50
Labor on same—J. M. McNamara	1 00
Wash tray and connections—J. M. McNamara	5 00
Two sets casters—Dunham, Carrigan & Hayden Co.	1 90
Hinges and lock—Justinian Caire	1 00
Lag screws—Justinian Caire	20
Rope—Justinian Caire	1 25
Repairing door check—F. D. Morrell	1 50
Forty feet ash—Waterhouse & Lester	4 50
One package string tags—Dutton & Partridge	30
Cleaning and regulating clocks—A. Settern	2 50
Two hundred and seventy-six lights, assorted sizes—Whittier, Fuller & Co.	235 35
One gallon alcohol—Whittier, Fuller & Co.	
Fifty pounds putty—Whittier, Fuller & Co.	
Five gallons turpentine—Whittier, Fuller & Co.	
One glazier's diamond—Whittier, Fuller & Co.	13 80
Four kegs 8d nails—Dunham, Carrigan & Hayden Co.	
Two kegs 3d nails—Dunham, Carrigan & Hayden Co.	
Two kegs 6d nails—Dunham, Carrigan & Hayden Co.	
Seventy-five pounds brass castings—F. Baud	7 20
Ninety-eight pounds bell metal castings—F. Baud	22 50
Ninety-two pounds brass castings—F. Baud	39 20
One map of France—B. Westermann & Co.	27 60
One map of Spain—B. Westermann & Co.	6 50
Five hundred pounds Paris white—Whittier, Fuller & Co.	4 40
Fifty pounds E. W. glue—Whittier, Fuller & Co.	7 50
Fifty pounds plaster Paris—Whittier, Fuller & Co.	12 50
One hundred pounds dry yellow ochre—Whittier, Fuller & Co.	1 50
Twenty-five pounds venetian red—Whittier, Fuller & Co.	2 50
Twenty-five pounds burnt umber—Whittier, Fuller & Co.	75
Ten pounds ultra blue—Whittier, Fuller & Co.	3 00
Three pounds lamp black—Whittier, Fuller & Co.	2 50
One 6-inch kalsomine brush—Whittier, Fuller & Co.	1 05
One 8-inch kalsomine brush—Whittier, Fuller & Co.	2 25
One walnut case for trophies—E. Hook	3 50
Advertising bids for painting—Oakland "Enquirer"	33 50
Advertising bids for painting—Oakland "Tribune"	7 50
Advertising bids for painting—Oakland "Times"	9 00
One dozen sash locks—J. M. Savage	5 50
One third dozen flush pulls—H. Rosekrans & Co.	1 50
Repairing brush—E. Levenson	50
One half dozen lag screws—Savage Bros.	3 25
One tape—Pierce & Co.	15
Six door holders—C. F. Short	1 50
Proposals for painting—San Francisco "Chronicle"	2 40
Proposals for painting—San Francisco "Examiner"	22 47
Two brass hooks—Savage Bros.	15 40
	50

DISBURSEMENTS—Continued.

One bronze lock—Dunham, Carrigan & Hayden Co.	\$3 50
One pair bronze butts—Dunham, Carrigan & Hayden Co.	2 00
Four key blanks—Dunham, Carrigan & Hayden Co.	50
Repairing closet—J. M. McNamara	1 50
Repairing water pipe—J. M. McNamara	1 75
Repairing shower bath—J. M. McNamara	3 00
Time of plumber and helper—J. M. McNamara	4 00
One pair bronzed buckets—Savage Bros.	1 00
Five gallons Elastic paint—Whittier, Fuller & Co.	12 50
Three lights—Whittier, Fuller & Co.	11 10
Three hundred feet T. and G. cedar—Niehaus Bros. & Co.	42 00
Two hundred and fifty-six feet molding—Niehaus Bros. & Co.	
One four-panel door—Niehaus Bros. & Co.	600 00
Painting on buildings—G. C. Gottung	
Four globes—Jeffress, Mitchell & Co.	2 00
Four ring holders—Jeffress, Mitchell & Co.	1 00
Four hours labor—Jeffress, Mitchell & Co.	2 00
Repairing telescope—J. Speak	1 50
Repairing roof of library—J. M. McNamara	4 00
Repairing two faucets in cottage—J. M. McNamara	1 50
Repairing one closet in cottage—J. M. McNamara	2 50
One light 43½x52½—Whittier, Fuller & Co.	7 75
Two spools copper wire—Joseph McClain	40
Two thousand one hundred cubic feet gas—Oakland Gas Co.	5 25
Three thousand four hundred cubic feet gas—Oakland Gas Co.	8 50
Putting up and repairing leader—J. M. McNamara	4 30
Repairing roof and sewer—J. M. McNamara	5 70
Repairing trap in gymnasium—J. M. McNamara	5 00
	\$6,087 10

APPENDIX No. 2 C—Administration—Advertising and Printing.

Printing 6,700 examination papers—C. A. Murdock & Co.	\$49 35
Printing 200 copies "Finance Committee's Report"—C. A. Murdock & Co.	18 00
Advertising entrance examinations—San Francisco "Bulletin"	8 60
Advertising entrance examinations—San Francisco "Call"	8 00
Advertising entrance examinations—San Francisco "Chronicle"	9 80
Advertising entrance examinations—San Francisco "Examiner"	9 80
Advertising entrance examinations—San Francisco "Alta California"	7 00
Advertising entrance examinations—San Francisco "Evening Post"	7 00
Advertising entrance examinations—Los Angeles "Times"	4 25
Advertising entrance examinations—Los Angeles "Herald"	5 00
Advertising entrance examinations—Los Angeles "Evening Express"	4 50
Advertising entrance examinations—Oakland "Tribune"	7 50
Advertising entrance examinations—Chico "Enterprise"	3 00
Advertising entrance examinations—Oakland "Times"	7 50
Advertising entrance examinations—Oakland "Enquirer"	3 00
Advertising entrance examinations—San Francisco "Report"	7 00
Advertising entrance examinations—Grass Valley "Tidings"	4 00
Advertising entrance examinations—Grass Valley "Union"	4 00
Advertising entrance examinations—Chico "Chronicle"	2 50
Printing 200 salary rolls—C. A. Murdock & Co.	12 00
Printing release of mortgage—C. A. Murdock & Co.	4 00
Printing proposed license and agreement—C. A. Murdock & Co.	4 50
Printing philosophy examination papers—C. A. Murdock & Co.	8 00
Printing 1,000 University interest receipts—Wm. C. Brown	8 00
Advertising money to loan—San Francisco "Chronicle"	3 60
Advertising money to loan—San Francisco "Examiner"	2 10
Advertising money to loan—San Francisco "Bulletin"	2 65
Advertising money to loan—San Francisco "Call"	1 75
Advertising money to loan—San Francisco "Post"	1 50
Advertising money to loan—San Francisco "Report"	1 50
Calling meeting of Board—San Francisco "Chronicle"	90
Calling meeting of Board—San Francisco "Alta"	2 00
Printing 100 cards for Regents—C. A. Murdock & Co.	2 00
Printing 1,000 applications—C. A. Murdock & Co.	22 00
Printing 6,000 tickets and envelopes—C. A. Murdock & Co.	39 00
Printing 200 announcements of courses—C. A. Murdock & Co.	9 50
Advertising entrance examinations—"Morning Times"	7 00
	\$301 80

DISBURSEMENTS—Continued.

APPENDIX No. 2 D—Administration—Telegraphing and Expressage.

Expressage—Wells, Fargo & Co.	\$210 12
Expressage—Patterson & Co.	92 30
Freight—Southern Pacific Co.	19 41
Telegraphing—Western Union Telegraph Co.	36 54
Exchange, etc., on warrants, bonds, etc.	129 01
Money orders, commission.	4 95

\$492 33

APPENDIX No. 2 E—Administration—Stationery.

Supplies for Secretary's office	\$125 60
Supplies for Recorder's office.	97 85
Supplies for President's office	29 80
Supplies for Land office.	2 50
Supplies for English department.	1 80

\$257 55

APPENDIX No. 2 F—Administration—Postage.

Postage for Secretary's office	\$112 00
Postage for Recorder's office.	370 00

\$482 00

APPENDIX No. 2 G—Administration—Land Administration.

Rebate on interest to John G. Busch.	\$25 55
Traveling expenses of E. A. Norton, from May 25, 1889, to August 9, 1889.	252 35
Services during that time—E. A. Norton	76 63
Clerical services, July and August—Walter C. Allen.	20 00
Fees on money order—N. B. Byrne.	15
Two boxes seals—H. S. Crocker & Co.	80
Returned money order—John Mullin	22 40
Postage stamps—N. B. Byrne.	50 00
Examination of records—J. R. Young	4 20
Quitclaim blanks—J. J. Evans.	4 50
Expressage—Wells, Fargo & Co.	3 00
Expressage—Wells, Fargo & Co.	30
Searching records—John B. Mhoon	5 00
Certified copy of list—J. H. Polk.	1 35
One blank book—Cunningham, Curtiss & Welch.	3 50

\$469 73

APPENDIX No. 2 H—Administration—Incidental Expenses.

Premium on bond of Secretary—Pacific Surety Co.	\$50 00
One bag and marking—Mann & Benedict.	10 00
Copying agreement with Western Union Telegraph Co.—Runge & Elliott.	1 15
Copying Chapin contract—G. Mahoney.	1 50
Notary's fees acknowledging two releases—A. B. Merrill	2 00
Notary's fees acknowledging one release—A. B. Merrill	1 00
Notary's fees acknowledging one release—A. B. Merrill	1 00
Notary's fees acknowledging one release—A. B. Merrill	1 00
Copying agreements—Julia Harris.	4 10
Copying agreements—Runge & Elliott.	60

\$72 35

APPENDIX No. 2 I—Administration—College Celebrations.

Six thousand cards, commencement exercises—C. A. Murdock & Co.	\$21 00
Six thousand envelopes, commencement exercises—C. A. Murdock & Co.	23 00
Filling out thirty-nine diplomas—T. R. Southern	19 50
Advertising and mailing invitations—W. W. Deamer	10 50
Two pieces of ribbon—Kohlberg, Strauss & Froman	2 70
Meals to musicians—J. G. Wright.	9 50
Forty-three diplomas—Schmidt Label Lithographing Co.	64 50
One thousand programmes for class day—Louis Dreka.	50 00
Four hundred dance programmes, class day—Louis Dreka.	34 00

\$234 70

DISBURSEMENTS—Continued.

APPENDIX No. 2 J—*Administration—Official and Lecturing Expenses.*

Traveling expenses of Secretary	\$58 80
Traveling expenses of Mr. Letts	63 30
Traveling expenses of Professor Howard	150 80
Traveling expenses of Professor Slate	174 55
Traveling expenses of Professor Stringham	111 50
Traveling expenses of Professor Jones	148 70
Traveling expenses of Professor Gayley	26 05
Traveling expenses of Professor Clarke	24 30
Traveling expenses of Professor Bradley	92 25
Traveling expenses of Professor Edwards	19 60
Traveling expenses of Dr. Senger	72 20
Traveling expenses of Mr. Iddins	2 35
Traveling expenses of Mr. O'Neill	24 50
Traveling expenses of Mr. Phipps	2 35
Traveling expenses of Janitor	20
Extra clerical service	10 55

\$982 00APPENDIX No. 2 K—*Administration—Cottage Repairs.*

Lining sink—J. M. McNamara	\$3 50
One faucet and repairs—J. M. McNamara	1 50
Two barrels coal tar—Oakland Gas Co.	10 00
One bath and connections—J. M. McNamara	13 50
Repairing showers—J. M. McNamara	1 50
Lining sink—J. M. McNamara	3 50
One chimney top—J. M. McNamara	7 00
One bell—Pierce & Co.	1 25
Twenty-eight rolls gold paper—McGovern & Cahill	4 20
Ten rolls color paper—McGovern & Cahill	75
Five and one third yards border paper—McGovern & Cahill	67
One pane glass—Whittier, Fuller & Co.	2 40
Three faucets—J. M. McNamara	3 00
Lining sink—J. M. McNamara	3 50
One boiler stand, and couplings—J. M. McNamara	12 50
Thirty-five feet pipe and fittings—J. M. McNamara	3 00
Repairing water pipe—J. M. McNamara	1 00
One chimney top—J. M. McNamara	7 00
Repairing stove—J. M. McNamara	1 50
One boiler stand, and couplings—J. M. McNamara	12 50
Forty feet water pipe—J. M. McNamara	3 50
Plumber and helper—J. M. McNamara	9 00
Fourteen rolls gold paper—McGovern & Cahill	2 80
One roll border paper—McGovern & Cahill	1 00
One dozen pull plates—Pierce & Co.	1 00
Two sash pulls—Pierce & Co.	50
One boiler and stand—J. M. McNamara	12 50
Connecting, fitting, and labor—J. M. McNamara	7 50
Repairing boiler pipe—J. M. McNamara	60
Two pounds of solder—J. M. McNamara	50
One boiler coupling—J. M. McNamara	40
Time of plumber—J. M. McNamara	1 50
Repairing of roof—J. M. McNamara	2 00
Solder and coal—J. M. McNamara	1 50
Time of plumber—J. M. McNamara	5 50
Repairing sink—J. M. McNamara	4 50
Night work—A. Edgar	7 50
Night work—R. Forbes	7 50
Night work—J. Tait	7 50
Night work—John Davis	5 00
Night work—R. Johnson	2 50

\$178 07APPENDIX No. 2 L—*Administration—Insurance.*

Premium on \$432,330—J. C. Mitchell & Son	\$4,323 30
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DISBURSEMENTS—Continued.

APPENDIX No. 2 M—Administration—Water Supply.

Labor for month of July	\$2 00
Labor for month of August	2 00
Labor for month of September	2 00
Water for June—Alameda Water Company	5 96
Water for September—Alameda Water Company	13 74
Labor for month of October	2 00
Water for October—Alameda Water Company	28 16
Labor for month of November	2 00
Survey in Strawberry Creek—W. G. Raymond	2 50
Two tracings—W. G. Raymond	4 00
Labor for month of December	2 00
State and county taxes	28 75
Town of Berkeley taxes	24 42
Fees on affidavits—A. B. Merrill	2 00
Services of engineer in examining site for reservoir—J. J. Cloud	100 00
Labor for month of January	2 00
Water for December and January—Alameda Water Company	67 96
Labor for month of February	2 00
Water for February—Alameda Water Company	18 60
One 2-inch cap—Alameda Water Company	25
Labor for month of March	2 00
Water for March—Alameda Water Company	28 35
Labor for month of April	2 00
Labor for month of May	2 00

\$346 69

APPENDIX No. 3 A—Agricultural Experiment Stations—Supplies.

Six thousand three hundred and twenty pounds beardless barley hay—Thomas Huey	\$28 44
One thousand and ten pounds hay—Geo. Rinehart & Bros.	11 37
One thousand two hundred and twenty pounds hay—Geo. Rinehart & Bros.	13 72
One box caps—E. Ginocchio & Bro.	90
Three window blinds—E. Ginocchio & Bro.	15 00
Tacks—E. Ginocchio & Bro.	25
Hinges and catches—E. Ginocchio & Bro.	1 00
Oilcloth—E. Ginocchio & Bro.	1 50
Twenty-five pounds Hercules powder—E. Ginocchio & Bro.	4 50
One box caps—E. Ginocchio & Bro.	85
Two hundred feet fuse—E. Ginocchio & Bro.	1 25
Sixty pounds spikes—E. Ginocchio & Bro.	2 00
One gallon machine oil—E. Ginocchio & Bro.	1 00
One hundred and ninety-six feet sugar pine—L. Newman & Co.	6 86
Thirty-six feet sugar pine—L. Newman & Co.	1 96
Sixty-four feet sugar pine—L. Newman & Co.	1 44
One dozen chairs, oak—L. Newman & Co.	20 75
Five door-knobs—L. Newman & Co.	50
Fifteen pounds 8d nails—L. Newman & Co.	75
One key-hole saw—J. Goldman & Co.	50
One punch—J. Goldman & Co.	25
Six and one half pounds solder—J. Goldman & Co.	1 95
One pound resin—J. Goldman & Co.	10
One can kerosene—Geo. F. Bell	1 75
One bottle sweet oil—Geo. F. Bell	10
Drugs, from A. R. Booth—Geo. F. Bell	75
Eight horseshoes—W. C. Henderson	3 50
One neck halter—E. G. Freeman	1 00
Straps and repairs—E. G. Freeman	1 00
Five 15-gallon oak wine kegs—J. H. Holden	10 00
Five 12½-gallon oak wine kegs—J. H. Holden	10 00
Twenty 10-gallon oak wine kegs—J. H. Holden	35 00
Twenty 9-gallon oak wine kegs—J. H. Holden	35 00
Ten 8-gallon oak wine kegs—J. H. Holden	15 00
One thousand five hundred 3-inch pots—Cal. Pottery and Terra Cotta Co.	22 00
One thousand 4-inch pots—California Pottery and Terra Cotta Co.	20 00
Two hundred 6-inch pots—California Pottery and Terra Cotta Co.	8 00
Five thousand pot labels—James Hutchinson	4 50
Six thousand tree labels—James Hutchinson	4 50
One thousand and eighty-eight pounds ground barley—J. Goldman & Co.	12 51

\$301 45

DISBURSEMENTS—Continued.

APPENDIX No. 3 B—*Agricultural Experiment Stations—Chemical Apparatus and Supplies.*

One copper tank and fixtures—John J. Menger.....	\$20 00
One white sink, 16x24—John J. Menger.....	22 00
Eight and eight ninths ounces nitrate of silver—Karl Howard.....	8 00
Two boxes soap—Justinian Caire.....	3 25
Toweling—Justinian Caire.....	5 00
Sal soda—Justinian Caire.....	15 00
Four evaporating dishes—Justinian Caire.....	2 70
One cup—Justinian Caire.....	25
One brush—Justinian Caire.....	10
Three packages tacks—Justinian Caire.....	25
One package rivets—Justinian Caire.....	70
One platinum dish, 60 grms.—Justinian Caire.....	25 80
One platinum dish, 30 grms.—Justinian Caire.....	12 90
One platinum dish, 18 grms.—Justinian Caire.....	7 75
Wine corks—Justinian Caire.....	5 00
Four 50-c.c. burettes—Justinian Caire.....	7 00
Two thermometers—Justinian Caire.....	5 00
One thermometer—Justinian Caire.....	1 00
Fifty pounds paraffine—Justinian Caire.....	9 00
Six Bunsen burners—Justinian Caire.....	7 50
Fifteen feet pure tin pipe—Justinian Caire.....	2 40
Two dozen glass funnels—Justinian Caire.....	2 40
Two dozen 2½-inch watch glasses—Justinian Caire.....	2 25
One dozen 4-inch watch glasses—Justinian Caire.....	2 50
One set graduated pipettes—Justinian Caire.....	4 00
Twenty-five feet rubber tube—Justinian Caire.....	7 50
Two dozen Kjedaahl flasks—Justinian Caire.....	10 00
One draw plate—Justinian Caire.....	3 00
Filter paper, 590—Justinian Caire.....	7 00
Filter paper, common—Justinian Caire.....	3 00
Three combustion boats (porcelain)—Justinian Caire.....	1 00
Three combustion boats (platinum)—Justinian Caire.....	5 00
Two 4-liter flasks—Justinian Caire.....	2 25
Two 5-liter flasks—Justinian Caire.....	2 50
Two 6-liter flasks—Justinian Caire.....	3 00
Two dozen soil tubes—Justinian Caire.....	8 00
Five filter pumps—Justinian Caire.....	8 75
Glass tubes, assorted—Justinian Caire.....	5 75
One dozen charcoal sticks—Justinian Caire.....	50
Ten feet platinum wire—Justinian Caire.....	5 00
One pneumatic trough—Justinian Caire.....	2 75
One glass aspirator—Justinian Caire.....	1 50
One dozen beakers—Justinian Caire.....	3 00
Two dozen 8-ounce reagents—Justinian Caire.....	9 00
Two dozen 16-ounce reagents—Justinian Caire.....)
Rubber corks, assorted—Justinian Caire.....	5 00
Wine corks—Justinian Caire.....	5 00
One dozen extract flasks—Justinian Caire.....	2 00
Two thermometers—Justinian Caire.....	2 00
One half dozen round bottom flasks—Justinian Caire.....	1 70
Two pounds granulated zinc—Justinian Caire.....	3 60
Two hundred pounds sal soda—Justinian Caire.....	3 00
One piece asbestos cloth—Justinian Caire.....	1 25
One pound baric nitrate—Justinian Caire.....	50
One match safe—Justinian Caire.....	25
One pair shears—Justinian Caire.....	1 00
One foot rubber hose—Justinian Caire.....	13
Hoop iron—Justinian Caire.....	2 00
One brass garden syringe—Justinian Caire.....	5 00
One glass cutter, diamond—Justinian Caire.....	4 00
One box glass, 9x14—Justinian Caire.....	2 25
One box glass, 10x16—Justinian Caire.....	2 50
Twenty-five pounds white lead—Justinian Caire.....	1 50
Three thermometers—Justinian Caire.....	1 00
One draw knife—Justinian Caire.....	1 00
Sole leather for washers—Justinian Caire.....	2 00
Two packages wire nails—Justinian Caire.....	35
Two scythes—Justinian Caire.....	3 00
Eight wire sieves—Justinian Caire.....	7 60

\$317 88

DISBURSEMENTS—Continued.

APPENDIX No. 3 C—*Agricultural Experiment Stations—Furniture.*

One R. W. bookcase and trays—A. H. Weber.....	\$30 00
One revolving bookcase—C. F. Weber & Co.	25 00
One hundred and eighty-seven yards cocoa matting—E. Hook.....	121 55
Three window shades—E. Hook	3 00
Three tables—E. Hook.....	18 00
One walnut desk—California Furniture Manufacturing Co.	35 00
One walnut cylinder desk—West Coast Furniture Manufacturing Co.	32 00
Two walnut office chairs—West Coast Furniture Manufacturing Co.	12 00
One extension table—West Coast Furniture Manufacturing Co.	6 00
Eight Douglas office chairs—West Coast Furniture Manufacturing Co.	16 00
One redwood case, 9x3½x11½—Niehaus Bros. & Co.	240 00
One redwood case, 11x11x6—Niehaus Bros. & Co.	
	\$538 55

APPENDIX No. 3 D—*Agricultural Experiment Stations—Freight and Expressage.*

Expressage—George Hansen	\$0 65
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APPENDIX No. 3 E—*Agricultural Experiment Stations—Labor.*

Payroll for June, 1888—Paso Robles Station.....	\$43 27
Payroll for June, 1888—Amador Station.....	231 15
Payroll for June, 1888—Tulare Station.....	100 00

\$374 42

APPENDIX No. 3 F—*Agricultural Experiment Stations—Water Supply.*

One shoe—Cox & Williams.....	\$0 50
Stirrups and angle irons—Cox & Williams.....	8 70
Drills sharpened—Cox & Williams.....	20
Tallow for pump—George Hansen.....	75
Water used in irrigating four acres—Kaweah Canal and Irrigating Co.	20 00
Seven hundred and six feet lumber—Blue Lake Water Co.	14 12
One thousand one hundred and nineteen feet lumber—Blue Lake Water Co.	16 60

\$60 87

APPENDIX No. 3 G—*Agricultural Experiment Stations—Incidental Expenses.*

Clerical service making report—J. D. Layman	\$11 00
Clerical service mailing bulletin—J. D. Layman	4 50

\$15 50

APPENDIX No. 3 H—*Agricultural Experiment Stations—Postage and Stationery.*

Postage—George Hansen.....	\$1 25
One mimeograph, No. 1—Samuel Hill Co.	20 00
One copy press—Payot, Upham & Co.	7 13
One copy brush—Payot, Upham & Co.	40
One copy bowl hanging—Payot, Upham & Co.	50
One Ideal letter bath—Payot, Upham & Co.	2 25
One Globe file, twenty drawers—Payot, Upham, & Co.	60 00
Two Monarch copy books—Payot, Upham & Co.	2 50
Two French copy books—Payot, Upham & Co.	3 00
One 300-page day book—J. J. Evans.....	1 90
Four sheets tracing paper—J. J. Evans.....	60
Two and one half dozen penholders—J. J. Evans.....	1 00
Three boxes tags—J. J. Evans.....	2 10
Two boxes pens—J. J. Evans.....	1 75
Three hundred McGill's fasteners—J. J. Evans.....	90
Two hundred McGill's fasteners—J. J. Evans.....	80
One dozen smooth note pads—J. J. Evans.....	1 50
Three dozen figuring note pads—J. J. Evans.....	1 50
Three note pads—J. J. Evans.....	25
Half dozen erasers—J. J. Evans.....	50
Half dozen Fabers—J. J. Evans.....	50
Two dozen red and blue pencils—J. J. Evans.....	2 00
One gross J. J. E. pencils—J. J. Evans.....	3 00
Four pints combined ink—J. J. Evans.....	2 00
One pint carmine ink—J. J. Evans.....	1 25
Three envelope openers—J. J. Evans.....	75
Three inkstands—J. J. Evans.....	3 00

DISBURSEMENTS—Continued.

Three rulers—J. J. Evans	\$0 45
Blotting—J. J. Evans	3 20
One dozen bottles mucilage—J. J. Evans	2 50
	<hr/> \$128 48

APPENDIX No. 3 I—*Agricultural Experiment Stations—Fencing and Drainage.*

Nine hundred and four feet clear pine—Henry W. Taylor	\$28 02
Thirty-eight feet redwood—Henry W. Taylor	1 33
One thousand five hundred feet 3-inch drain tile—Gladding, McBean & Co.	45 00
One thousand feet 2-inch drain tile—Gladding, McBean & Co.	30 00
One thousand feet 2-inch drain tile—Gladding, McBean & Co.	25 00
	<hr/> \$129 35

APPENDIX No. 3 J—*Agricultural Experiment Stations—Scientific Instruments.*

One $\frac{1}{2}$ -inch objective—Henry Kahn & Co.	\$15 00
Two $\frac{3}{8}$ -inch objectives—Henry Kahn & Co.	18 00
Two 1-inch objectives—Henry Kahn & Co.	12 00
One $1\frac{1}{2}$ -inch objective—Henry Kahn & Co.	6 00
One magnifier—Henry Kahn & Co.	2 00
Three magnifiers—Henry Kahn & Co.	3 00
One magnifier—Henry Kahn & Co.	1 30
Three fourths dozen medias—Henry Kahn & Co.	1 88
One and one half dozen medias—Henry Kahn & Co.	37
Four forceps—Henry Kahn & Co.	1 60
One forcep—Henry Kahn & Co.	1 00
	<hr/> \$62 15
Less 10 per cent	6 21
	<hr/> \$55 94

APPENDIX No. 3 K—*Agricultural Experiment Stations—Tools, Implements, and Machinery.*

Two singletrees—Fregulio & Froelich	\$4 00
Two brake blocks—Fregulio & Froelich	2 00
Beam for plow—Fregulio & Froelich	5 00
One Michigan scale—G. G. Wickson & Co.	24 00
Two double beam Union scales—Baker & Hamilton	39 50
Two steel yards—Baker & Hamilton	
One Eureka wagon and shafts—Truman, Hooker & Co.	45 00
One set No. 11 harness—Truman, Hooker & Co.	11 00
Twenty-five feet extra belt—Woodin & Little	5 50
	<hr/> \$136 00

APPENDIX No. 3 L—*Agricultural Experiment Stations—Printing.*

Seven hundred and fifty bulletins, No. 82—Dewey & Co.	\$4 50
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APPENDIX No. 3 M—*Agricultural Experiment Stations—Labor.*

Labor for month of July	\$145 00
Payroll for July—Paso Robles Station	46 73
Payroll for July—Tulare Station	108 00
Labor for month of August	40 00
Payroll for July—Amador Station	155 60
Payroll for August—Amador Station	93 25
Payroll for August—Tulare Station	93 00
Payroll for September—Amador Station	128 45
Labor for month of September	42 00
Payroll for August—Paso Robles Station	46 73
Payroll for September—Tulare Station	49 00
Payroll for September—Paso Robles Station	43 27
Labor for month of October	59 00
Picking grapes at Margherita vineyard	9 50
Picking grapes at Cupertino—L. E. Benton	50 00
Picking and packing grapes at Cupertino—John J. Doyle	25 30
Payroll for October—Amador Station	86 80
Payroll for October—Tulare Station	52 00
Picking grapes at Mission San José—A. J. Salazar	11 50
Labor for month of November	26 00
Payroll for November—Amador Station	104 50

DISBURSEMENTS—Continued.

Payroll for November—Tulare Station	\$52 00
Payroll for December—Amador Station	103 35
Payroll for December—Tulare Station	91 00
Payroll for December—Paso Robles Station	45 00
Labor for month of January	34 00
Payroll for October—Paso Robles Station	46 73
Payroll for November—Paso Robles Station	45 00
Payroll for January—Tulare Station	94 00
Payroll for January—Amador Station	85 85
Payroll for January—Paso Robles Station	40 80
Labor for month of February	33 00
Payroll for February—Tulare Station	66 00
Payroll for February—Paso Robles Station	41 52
Payroll for February—Amador Station	82 85
Labor, clearing ground at Amador Station	95 00
Payroll for March—Tulare Station	148 00
Payroll for March—Amador Station	192 00
Labor for month of March	78 20
Payroll for March—Paso Robles Station	59 00
Labor for month of April	74 00
Payroll for April—Tulare Station	146 00
Labor (plowing)—Paso Robles Station	9 05
Payroll for April—Paso Robles Station	95 00
Labor (repairing tools)—Amador Station	3 75
Payroll for April—Amador Station	279 00
Payroll for May	16 00
Payroll for May—Paso Robles Station	93 46
Payroll for May—Tulare Station	111 00
Payroll for May—Amador Station	157 35

\$3,833 54

APPENDIX No. 3 N—Agricultural Experiment Stations—Buildings.

Hooks—Hewitt Bros.	\$0 10
Two punches—Hewitt Bros.	50
Two scrapers—Hewitt Bros.	50
Tin flashing—Hewitt Bros.	2 50
Sandpaper—Hewitt Bros.	20
Putty—Hewitt Bros.	50
Tin flashing—Hewitt Bros.	90
Pointing plow—A. Young	1 00
Trimming horses feet—A. Young	50
Sharpening pick—W. C. Henderson	25
Repairing stove—W. C. Henderson	25
Repairing buggy—W. C. Henderson	1 75
Sharpening pick—W. C. Henderson	25
Eight horseshoes—W. C. Henderson	3 50
Repairing singletree—W. C. Henderson	50
Four horseshoes—W. C. Henderson	1 75
One thousand and ninety-five feet redwood—Salinas Valley Lumber Co.	26 80
Thirty-two bunches shingles—Salinas Valley Lumber Co.	24 00
Erecting implement shed—L. A. Creasy	12 00
One half gallon coat varnish—Hewitt Bros.	2 50
Two gallons plow paint—Hewitt Bros.	4 00
Three panes glass—Hewitt Bros.	3 00
Two joints terra cotta pipe—Hewitt Bros.	2 25
One hundred and eighty-four feet R. W. lumber—S. J. Valley Lumber Co.	5 57
Lumber for erection of building—Citizens Committee of Jackson	56 35
Eighty-two feet lumber—San Joaquin Lumber Co.	2 75
Two hundred laths—San Joaquin Lumber Co.	2 40
Two and a half days work at Tulare—W. D. Hammerly	7 50
Two hundred and ten pounds lime—Geo. Hansen	3 15
Teamster and team—Geo. Hansen	3 50
Four sacks plaster—Geo. Hansen	1 00
One thousand one hundred and ninety-three feet lumber—L. Newman & Co.	37 02
Sash for carpenter shop—J. M. Levy	2 50
One keg 10d nails—J. M. Levy	4 50
Fifty pounds 20d nails—J. M. Levy	2 25
Finishing nails—J. M. Levy	25
One keg 8d nails—J. M. Levy	4 50
Door fasteners and locks—J. M. Levy	1 80
Finishing nails—J. M. Levy	75
Thirty pounds 20d nails—J. M. Levy	1 50

DISBURSEMENTS—Continued.

Three hundred and twenty-four feet lumber—F. M. Whitmore	\$8 29
Four hundred shakes—F. M. Whitmore	3 60
Two hundred and ten feet lumber—F. M. Whitmore	8 40
Three hundred and sixty-seven pounds lime—Frank Masoni	5 50
Ten pounds nails—E. Ginocchio & Bro.	60
Hinges and fixtures—E. Ginocchio & Bro.	67
One box caps—E. Ginocchio & Bro.	85
Twenty-five pounds powder—E. Ginocchio & Bro.	5 00
One hundred and twenty-five feet rustic lumber—F. M. Whitmore	5 00
Two hundred feet T. and G. lumber—F. M. Whitmore	8 00
One hundred feet Scotia lumber—F. M. Whitmore	1 00
Fifty feet casing—F. M. Whitmore	2 00
Eight hundred feet common rough lumber—L. Newman & Co.	18 00
Five pounds 20d nails—J. M. Levy	25
Finishing nails—J. M. Levy	1 00
Five pounds 8 and 10d nails—J. M. Levy	75
Labor on buildings—Paso Robles Station	24 85
Painting stable, shed, tool house, etc.—J. E. Bishop	45 00
One thousand four hundred and eighty-eight feet lumber—F. M. Whitmore	43 02
Three thousand shingles—F. M. Whitmore	10 00
Labor on buildings—Frank Hahn	36 00
Seventy-five pounds nails—J. M. Levy	3 75

\$458 62

APPENDIX No. 3 O—*Agricultural Experiment Stations—Chemical Apparatus and Supplies.*

Two reams filter paper, common—Justinian Caire	\$9 00
One ream filter paper, extra—Justinian Caire	20 00
Washed filter paper, assorted—Justinian Caire	20 15
Forty-four pounds paraffine—Justinian Caire	6 60
One dozen stoppered bottles—Justinian Caire	4 00
Three 3-c.c. pipettes—Justinian Caire	75
Two 10-c.c. cylinders—Justinian Caire	80
Six spring clips—Justinian Caire	1 50
Six burette clamps—Justinian Caire	4 80
Two dozen evaporating dishes—Justinian Caire	6 00
Twenty pounds caustic potash—Justinian Caire	2 00
Four pounds carbonate soda—Justinian Caire	2 16
Four pounds bicarbonate soda—Justinian Caire	5 00
Four pounds sodium sulphate—Justinian Caire	2 70
Benzine—Justinian Caire	50
Eight feet rubber tube—Justinian Caire	2 75
One pair scissors—Justinian Caire	75
Tacks and locks—Justinian Caire	65
Two saucepans—Justinian Caire	1 20
Two tin sieves—Justinian Caire	80
One gallon measure—Justinian Caire	1 75
Two wire screens for stemmer—Justinian Caire	3 25
Six coffee sacks—Justinian Caire	1 50
One bung borer—Justinian Caire	2 00
Six sink scrubbers—Justinian Caire	50
One large shovel—Justinian Caire	1 00
Two coal scuttles—Justinian Caire	1 50
Two small hatches—Justinian Caire	1 50
Two common brooms—Justinian Caire	1 50
Two mop brooms—Justinian Caire	1 00
One scrub brush—Justinian Caire	75
Pearline—Justinian Caire	25
Six feather dusters—Justinian Caire	3 00
Gum labels—Justinian Caire	1 00
Twelve sponges—Justinian Caire	1 00
Three and one half pounds pure ether—Justinian Caire	3 10
One rasp—Justinian Caire	40
Ninety-nine feet rubber hose—Justinian Caire	12 87
Six gross soil bottles—Justinian Caire	58 50
Four gross 2-ounce bottles—Justinian Caire	11 00
Two gross 1-dram vials—Justinian Caire	1 87
Four gross, each $\frac{1}{2}$ -dram, $\frac{1}{4}$ -dram, $\frac{1}{8}$ -dram vials—Justinian Caire	10 12
One hundred and thirteen pounds aqua ammonia—S. F. Gas Light Co.	9 05
Copper bath—Emil Gruner	3 00
Four drying tubes—Emil Gruner	5 00
Two extractors—Emil Gruner	2 00

DISBURSEMENTS—Continued.

Two platinum disks—Emil Gruner	\$1 80
Boxing—Emil Gruner	20
Two glass retorts—Justinian Caire	2 15
Six hundred corks—Justinian Caire	2 10
One thousand tags—Justinian Caire	1 50
Twine—Justinian Caire	2 50
Three cask brushes—Justinian Caire	3 00
Three brooms—Justinian Caire	15
One box candles—Justinian Caire	2 00
One pair tongs—Justinian Caire	1 00
Graphite—Justinian Caire	1 00
Seven pounds sulphuric ether—Justinian Caire	5 60
Six mouse traps—Justinian Caire	75
Fifty bungs—Justinian Caire	1 35
Filter paper—Justinian Caire	4 00
Matches—Justinian Caire	1 75
Watch glasses—Justinian Caire	3 75
One pair scissors—Justinian Caire	75
One 5-c.c. pipette—Justinian Caire	40
One 10-c.c. pipette—Justinian Caire	70
One 25-c.c. pipette—Justinian Caire	1 00
Two casseroles—Justinian Caire	2 00
Six straw rings—Justinian Caire	1 00
Fifty grains carbozol—Justinian Caire	2 50

\$273 47

APPENDIX No. 3 P—Agricultural Experiment Stations—Furniture.

Five shades—E. Hook	\$5 00
One hat rack—E. Hook	1 50
One office chair—E. Hook	7 00
One pine table—E. Hook	6 00
Stove for office—Hewitt Bros.	12 25
Stove board—Hewitt Bros.	1 50
Five joints pipe—Hewitt Bros.	2 00
Pipe collar—Hewitt Bros.	15
One damper—Hewitt Bros.	25
Fitting desk with pipe connections—John J. Menges	6 00
Two 6-foot tables—E. Hook	12 00
Three shades—E. Hook	3 00
One office rug—J. M. Levy	2 75
One office drawer—J. M. Levy	1 25
Furnishing and putting in speaking tubes—J. J. Menges	3 96
One Ruby gas stove—Oakland Gas Co.	7 25
One thousand feet surfaced redwood—Henry W. Taylor	33 00
Cartage and mill work—Henry W. Taylor	2 50
One dozen S. P. R. chairs—California Manufacturing Co.	21 00
Fifty-eight square yards cocoa matting—E. Hook	43 50

\$171 86

APPENDIX No. 3 Q—Agricultural Experiment Stations—Fencing and Drainage.

One thousand and twenty-three pounds galvanized wire—George F. Bell	\$57 80
Five hundred shakes—S. P. Milling Co.	7 00
Twenty-one feet surfaced—S. P. Milling Co.	1 05
Labor, cutting shakes—S. P. Milling Co.	1 00
Two hundred and twenty-two feet surfaced—S. P. Milling Co.	8 98
Two hundred and forty feet rustic—S. P. Milling Co.	9 00
One door and window—S. P. Milling Co.	4 75
One lock and butts—S. P. Milling Co.	1 00
Three hundred shakes—S. P. Milling Co.	4 20
Fifty-four rods picket fence—J. C. Manock	62 30
One hundred and fifty feet refuse—Salinas Valley Lumber Co.	3 25
Twenty-five 6½-foot posts—Salinas Valley Lumber Co.	4 00
One coil galvanized wire—Salinas Valley Lumber Co.	5 61

\$169 94

APPENDIX No. 3 R—Agricultural Experiment Stations—Freight and Expressage.

Freight on wagon to Tulare—Southern Pacific Co.	\$8 06
Freight—E. Ginocchio & Bro.	5 80
Expressage—Geo. Hansen	1 15
Expressage from Woodin & Little—Geo. Hansen	1 50

DISBURSEMENTS—Continued.

Express on traps—Julius Forrer	\$0 55
Expressage—Wells, Fargo & Co.	1 15
Expressage on cuttings—Margherita vineyard	7 00
Expressage to Mission San José—Wells, Fargo & Co.	25
Hauling grapes at Cupertino—J. H. McComb	34 00
Freight on six hundred pounds plaster—Southern Pacific Co.	21 25
Freight and expressage—E. Ginocchio & Bro.	2 10
Freight on one thousand five hundred packages drain tile—Southern Pacific Co.	43 80
Expressage to Mountain View—Wells, Fargo & Co.	75
Freight on galvanized leaders—Southern Pacific Co.	1 65
Freight on one bale trees—Southern Pacific Co.	1 85
Freight on one bale trees—Southern Pacific Co.	1 00
Freight on one box trees—Southern Pacific Co.	1 55
Expressage—Wells, Fargo & Co.	2 00
Expressage—W. W. Montague & Co.	50
Expressage—Whitney's Express	50
Freight on two bales trees—Southern Pacific Co.	4 45
Freight—E. Ginocchio & Bro.	2 00
Freight on eight cords stakes—Southern Pacific Co.	80 50
Freight—E. Ginocchio & Bro.	2 75
Freight on eight cords stakes—Southern Pacific Co.	63 00
Eight cords grape stakes; freight on, to Paso Robles—Southern Pacific Co.	44 80

\$333 91

APPENDIX No. 3 S—Agricultural Experiment Stations—Incidental Expenses.

Expenses at County Fair, Ione—George Hansen	\$6 25
Photographs for exhibit—George Hansen	2 75
Saltpeter for horses—George Hansen	25
Horseshoe—George Hansen	75
Trimming horse's feet—Julius Forrer	50
Expenses at County Fair, Sacramento—George Hansen	1 50
Sending grapes to Ione—George Hansen	1 50
Ingredients for wax for trees—George Hansen	1 75
Squirrel poison—George Hansen	50
Postage—George Hansen	1 00
Horseshoeing—Cox & Williams	2 50
Auger handles—Cox & Williams	50
Sharpening picks and crowbar—Cox & Williams	50
Horseshoeing—Cox & Williams	2 00
Lime—George Hansen	2 65
Milk for whitewash—George Hansen	1 00
Expressage on coin—George Hansen	1 70
Postage—George Hansen	75
Insurance at Paso Robles—J. C. Mitchell & Sons	21 60
Sheltering horses during rain—George Hansen	1 00
Postage—George Hansen	50
Stabling horses—George Hansen	50
Twelve sheets board—George Hansen	2 25
Six sheets blotting—George Hansen	75
Expressage and postage—George Hansen	95
One grape stemmer—A. H. Broad	6 50
Two pounds copper wire—A. T. Cotton	1 50
Twenty-four reducers—A. T. Cotton	6 00
Three pounds soldér—A. T. Cotton	75
Four hours' work—A. T. Cotton	2 75
Two tons alfalfa hay—J. M. Alexander	13 00
Two cords wood—A. Lustfield	10 00
One brush—E. Ginocchio & Bro.	75
One can lead and oil—E. Ginocchio & Bro.	1 00
One keg lead and oil—E. Ginocchio & Bro.	3 00
One can coal oil—E. Ginocchio & Bro.	1 87
One box powder and caps—E. Ginocchio & Bro.	6 00
Hinges and tacks—E. Ginocchio & Bro.	75
Two screws—E. Ginocchio & Bro.	36
Ten-pound sledge hammer—E. Ginocchio & Bro.	2 50
One hammer handle—E. Ginocchio & Bro.	25
Lantern globe—E. Ginocchio & Bro.	37
Hooks—E. Ginocchio & Bro.	50
Two dozen quarts carbon bisulphide—John H. Wheeler	12 00
Two foot scrapers—Cox & Williams	1 00
Three horseshoes—Cox & Williams	1 50

DISBURSEMENTS--Continued.

Forwarding grain—Geo. Hansen		\$0 60
Stabling horse—Geo. Hansen		25
Office lamp—Geo. Hansen		2 50
Postage—Geo. Hansen		45
Staples and pincers—Bennett, Shackelford & LeBlanc		1 50
One doubletree bar—Bennett, Shackelford & LeBlanc		45
Fifteen pounds 3d nails—Bennett, Shackelford & LeBlanc		1 20
Eight pounds 10d nails—Bennett, Shackelford & LeBlanc		50
Eight pounds 8d nails—Bennett, Shackelford & LeBlanc		50
Three pounds 10d nails—Bennett, Shackelford & LeBlanc		20
One lock—Bennett, Shackelford & LeBlanc		10
Hinges and butts—Bennett, Shackelford & LeBlanc		40
Hat hooks—Bennett, Shackelford & LeBlanc		20
Pointing plow—W. C. Henderson		75
Eight shoes—W. C. Henderson		3 50
Ball wicking—Thos. C. Jameson		10
Two feet lead pipe—Thos. C. Jameson		75
Labor on sink—Thos. C. Jameson		2 00
Two pieces zinc—John J. Menges		1 50
Freight on one bale cuttings—Julius Forrer		1 45
Pipe and labor on trough—Julius Forrer		1 65
Trimming horse's feet—Julius Forrer		50
Expenses on deed—Geo. Hansen		6 75
One stove board—Hewitt Bros.		1 25
Twenty feet 1½-inch pipe—Hewitt Bros.		3 00
Two bushings—Hewitt Bros.		35
Cutting and threading pipe—Hewitt Bros.		50
Paint and varnish—Hewitt Bros.		3 75
One horse blanket—E. G. Freeman		1 50
One whip—E. G. Freeman		2 00
One pair single lines—E. G. Freeman		2 50
Repairing tug—E. G. Freeman		1 25
Setting shoes—Cox & Williams		75
Sharpening pick—Cox & Williams		25
Hooks and eyes—Cox & Williams		1 00
Iron plate—Cox & Williams		50
Repairing plow—Cox & Williams		1 75
One horseshoe—Cox & Williams		50
Two quarts flour corn—V. H. Hallock & Son	\$0 75	
Three pints Japanese gourd—V. H. Hallock & Son	30	
Two quarts cherssas—V. H. Hallock & Son	60	
One hundred Stachy's affinis—V. H. Hallock & Son	75	
Twenty-five ora—V. H. Hallock & Son	1 25	
Four pints Spanish peanuts—V. H. Hallock & Son	40	
	\$4 05	
Less 40 per cent	1 60	
		2 45
Postage on same—V. H. Hallock & Son		54
Twenty-five pounds St. Johns brand—Reddington & Co.		5 00
Two pounds beet seed—Julius Forrer		60
One garden line—Julius Forrer		25
Sharpening plowshare—Julius Forrer		30
One waterpot—Julius Forrer		1 75
Plow point—Julius Forrer		1 00
Express on cuttings—Julius Forrer		75
One sidehill plow—J. M. Levy		8 50
Kettle and screw-eyes—J. M. Levy		1 15
Mattock handle and broom—J. M. Levy		90
Curtain for office—J. M. Levy		50
File—J. M. Levy		25
Salt—J. M. Levy		75
Eighty-five feet lumber—L. Newman & Co.		2 49
One broom—L. Newman & Co.		40
One hundred and seven pounds barbed wire—L. Newman & Co.		6 96
Livery stable expenses—George Hansen		25
Strychnine—George Hansen		50
Slum—George Hansen		50
Postage—George Hansen		40
Two shoes—Cox & Williams		1 00
Two links—Cox & Williams		25
Two shoes—Cox & Williams		1 00
One mattock steeled—Cox & Williams		1 25

DISBURSEMENTS—Continued.

Hook—Cox & Williams		\$0 25
Pick sharpened—Cox & Williams		25
Subscription to Association of American Colleges and Experiment Stations		10 00
Three pounds sorghum seed—Trumbull & Beebe	\$0 45	
Two pounds white clover seed—Trumbull & Beebe	80	
Ten pounds bean seed—Trumbull & Beebe	1 80	
Four pounds beet seed—Trumbull & Beebe	1 80	
Three pounds carrot seed—Trumbull & Beebe	2 00	
One package celery seed—Trumbull & Beebe	15	
Four pounds corn seed—Trumbull & Beebe	60	
Six ounces cucumber seed—Trumbull & Beebe	85	
One pound mushroom spawn—Trumbull & Beebe	25	
Four ounces muskmelon seed—Trumbull & Beebe	60	
Six ounces watermelon seed—Trumbull & Beebe	75	
Three ounces onion seed—Trumbull & Beebe	90	
Eight pounds pea seed—Trumbull & Beebe	1 30	
Three packages pepper seed—Trumbull & Beebe	30	
Eleven ounces radish seed—Trumbull & Beebe	1 10	
Three ounces squash seed—Trumbull & Beebe	45	
One pound squash seed—Trumbull & Beebe	40	
Four ounces tomato seed—Trumbull & Beebe	1 00	
Nine ounces turnip seed—Trumbull & Beebe	90	
Three packages egg plant seed—Trumbull & Beebe	30	
Seven and one half ounces cabbage seed—Trumbull & Beebe	1 56	
One half ounce celery seed—Trumbull & Beebe	50	
	\$18 51	
Less 10 per cent	1 85	
		16 66
Assorted seeds—Thomas A. Cox & Co.		11 45
Cablegram to Italy—Stewart & Trowbridge		4 60
Assorted flower seeds—James M. Thorburn & Co.		3 36
One filter and packing—California Pottery and Terra Cotta Co.		10 50
Four Idaho pear trees—The Idaho Pear Co.		8 00
Postage and telegram—George Hansen		85
Alum and sulphur—George Hansen		80
Making water troughs—George Hansen		4 50
Postage—George Hansen		70
One pick steeled and sharpened—Cox & Williams		1 25
Four shoes—Cox & Williams		2 00
Four picks sharpened—Cox & Williams		1 00
Three shoes—Cox & Williams		1 50
Repairing neckyoke straps—E. G. Freeman		1 25
Repairing hame straps—E. G. Freeman		50
Repairing bridle—E. G. Freeman		25
Martingal—E. G. Freeman		1 50
One bit, and paint and glue—E. G. Freeman		1 15
Eight horseshoes—Clark & Elliott		3 50
One kingbolt—Clark & Elliott		75

\$303 16

APPENDIX No. 3 T—Agricultural Experiment Stations—Postage and Stationery.

Postage—George Hansen	\$1 25
Telegram—George Hansen	60
Postage—George Hansen	75
Telegrams—George Hansen	1 35
Two hundred and fifty 1-cent stamps—N. B. Byrne	2 50
Three hundred and seventy-five 2-cent stamps—N. B. Byrne	7 50
One thousand postal cards—N. B. Byrne	10 00
One and one half dozen records—J. J. Evans	14 40
One half dozen records—J. J. Evans	6 00
Two and one half quires gum folio—J. J. Evans	1 00
Twenty-seven boxes gum labels—J. J. Evans	2 50
Two reams foolscap—J. J. Evans	5 00
One ream foolscap—J. J. Evans	3 50
Ten sheets blotting—J. J. Evans	1 00
Three waste baskets—J. J. Evans	3 00
Three bottles crimson ink—J. J. Evans	75
Six letter files—J. J. Evans	3 75
Twenty counter books—J. J. Evans	1 70
One bottle Comb. ink—J. J. Evans	25
One bottle India ink—J. J. Evans	50

DISBURSEMENTS—Continued.

Indelible pencils—J. J. Evans	\$0 70
Two copying books—J. J. Evans	2 00
Twenty 5-cent stamps—N. B. Byrne	1 00
One thousand 1-cent stamps—N. B. Byrne	10 00
Seven hundred 2-cent stamps—N. B. Byrne	14 00
One stamp moistener—C. Beach	75
One pint Comb. ink—J. J. Evans	75
Six dozen J. J. E. pencils—J. J. Evans	1 50
Forty diaries—J. J. Evans	7 00
Three dozen note books—J. J. Evans	2 50
One quart mucilage—J. J. Evans	1 00
Two dozen passbooks—J. J. Evans	4 25
One dozen note pads—J. J. Evans	1 50
Three bottles Stylo. ink—J. J. Evans	75
One dozen Globe letter files	4 30
One box rubber bands—J. J. Evans	1 50
Paper fasteners—J. J. Evans	50
Two copying books—J. J. Evans	3 00
Postage—George Hansen	50
Telegram—George Hansen	40
One Remington typewriter—G. G. Wickson & Co.	100 00
Supplies for same—G. G. Wickson & Co.	18 75
Stamps—N. B. Byrne	25 00
	<hr/>
	\$268 95

APPENDIX No. 3 U—*Agricultural Experiment Stations—Printing.*

Seven plates for annual report—Dewey Engraving Co.	\$48 50
Drawings for above plates—Ross F. Tucker	23 00
Two thousand five hundred bulletins No. 83—Dewey & Co.	11 25
Three thousand bulletins No. 84—Dewey & Co.	13 50
Three thousand bulletins No. 85—Dewey & Co.	13 50
Two engravings of experiment grounds—Dewey Engraving Co.	8 00
Eight engravings of experiment buildings—Dewey Engraving Co.	12 00
Three thousand bulletins No. 86—Dewey & Co.	13 50
Three thousand bulletins No. 87—Dewey & Co.	13 50
	<hr/>
	\$156 75

APPENDIX No. 3 V—*Agricultural Experiment Stations—Supplies.*

Salt—Geo. F. Bell	\$0 10
Lubricating oil—Geo. F. Bell	75
Squirrel poison—Geo. F. Bell	2 00
One barrel lime—Geo. F. Bell	1 35
Repairing harness—Julius Forrer	50
Two lame straps—Julius Forrer	50
One bench screw—Julius Forrer	75
Ground barley—E. Ginocchio & Bro.	6 59
Hinges and catches—E. Ginocchio & Bro.	1 50
Four pair butts—E. Ginocchio & Bro.	1 00
Lock and staples—E. Ginocchio & Bro.	75
Ten pounds nails—E. Ginocchio & Bro.	50
Twenty pounds nails—E. Ginocchio & Bro.	1 00
Barley—E. Ginocchio & Bro.	3 90
Brads—E. Ginocchio & Bro.	20
One hundred and forty-seven pounds barley—E. Ginocchio & Bro.	2 20
Thirty pounds nails—E. Ginocchio & Bro.	1 50
Two pair hinges—E. Ginocchio & Bro.	78
One hundred and fifty-seven pounds barley—E. Ginocchio & Bro.	2 35
Eighty pounds iron—E. Ginocchio & Bro.	4 30
Twenty pounds spikes and nails—E. Ginocchio & Bro.	1 00
Two padlocks and chain—E. Ginocchio & Bro.	1 30
One pair hinges—E. Ginocchio & Bro.	37
Four thousand four hundred and eighty pounds hay—Gianetti Belnomini	44 88
Two thousand eight hundred and thirty pound hay—Geo. Rinehart & Bros.	28 30
One thousand and twenty pounds hay—David Mattley	10 20
Wire screen—Hewitt Bros.	2 00
Two pair strap hinges—Hewitt Bros.	1 00
Nails and screws—Hewitt Bros.	2 00
One pail—Hewitt Bros.	65
Nippers and rule—Hewitt Bros.	1 00
Hooks—Hewitt Bros.	35
Stove utensils—Hewitt Bros.	15

DISBURSEMENTS—Continued.

One basin—Hewitt Bros.	\$0 75
One ton wheat hay—O. F. Manock	6 50
One cord wood—A. Lustfield	4 50
One can axle grease—J. Goldman & Co.	20
One thousand and forty pounds barley—J. Goldman & Co.	11 44
Fifty-six feet T. and G. lumber—L. Newman & Co.	2 24
One hundred and sixty-eight feet lumber—L. Newman & Co.	3 78
One thousand four hundred and twenty-eight feet surfaced lumber—L. Newman & Co.	37 45
Six pieces rustic—L. Newman & Co.	2 56
Twenty-five pieces T. and G. lumber—L. Newman & Co.	5 32
Two thousand one hundred and fifty-five feet lumber—L. Newman & Co.	48 49
Eight pieces T. and G. lumber—L. Newman & Co.	2 56
Fifty pounds nails—L. Newman & Co.	2 25
Scotia molding—L. Newman & Co.	2 82
Four door knobs—L. Newman & Co.	40
Seven hundred and seventy-four feet lumber—L. Newman & Co.	17 50
One hundred and fifty pounds round iron—E. Ginocchio & Bro.	7 50
Freight and expressage—E. Ginocchio & Bro.	4 75
Padlock and chain—E. Ginocchio & Bro.	65
Level—E. Ginocchio & Bro.	1 50
One hundred and seventy pounds ground barley—E. Ginocchio & Bro.	2 55
Twenty pounds 10d nails—E. Ginocchio & Bro.	1 00
Two hundred and twenty-six pounds ground barley—E. Ginocchio & Bro.	3 39
Dressing and collars—E. G. Freeman	85
Strap—E. G. Freeman	25
Repairing harness—E. G. Freeman	1 60
Whip—E. G. Freeman	50
Repairing lines, breast strap, and trees	1 75
One set breeching	7 00
One saddle and bridle	26 00
Two saddle blankets	2 50
One ton hay—W. G. Turner	7 00
One jug—J. M. Levy	50
One lock—J. M. Levy	40
One barrel—J. M. Levy	2 50
One can coal oil—J. M. Levy	1 60
One ton alfalfa hay—A. W. Starr	7 00
One bolt—W. C. Henderson	15
One band wheel—W. C. Henderson	50
One new shoe—W. C. Henderson	45
Three new shoes—W. C. Henderson	1 25
Repairing pick—W. C. Henderson	25
Setting tires—W. C. Henderson	4 00
One hub band—W. C. Henderson	25
Four shoes—W. C. Henderson	1 75
Two locks—J. M. Levy	80
Hatchet handle—J. M. Levy	10
Sandpaper—J. M. Levy	15
Two padlocks—J. M. Levy	1 25
Three pick handles—J. M. Levy	75
Two pair hinges and screws—J. M. Levy	75
One ax—J. M. Levy	1 25
Axle grease—J. M. Levy	50
One funnel—Hewitt Bros.	25
Thirty-four and one half feet 1-inch pipe—Hewitt Bros.	2 76
Cutting pipe—Hewitt Bros.	25
Cutting pipe—Hewitt Bros.	25
Reducer—Hewitt Bros.	75
One quart turps.—Hewitt Bros.	25
Two dozen hooks—Hewitt Bros.	50
One ton grain hay—O. F. Manock	7 00
Five thousand eight hundred and five pounds hay—Thomas Huey	26 10
Eighty-four pounds wild oats—Trumbull & Beebe	1 47
Five pounds orchard grass—Trumbull & Beebe	1 00
Cartage—Trumbull & Beebe	25
Two sacks wild oats—Trumbull & Beebe	2 98
Cartage—Trumbull & Beebe	50
Nine sacks ground barley—Geo. F. Bell	6 55
Ink—Geo. F. Bell	30
Freight on soap—Geo. F. Bell	25
One cord stove wood—A. Lustfield	4 50
Seven hundred and sixty-five pounds ground barley—J. Goldman & Co.	8 80

DISBURSEMENTS—Continued.

Twine—E. Ginocchio & Bro.	\$0 25
Two boxes Hercules powder—E. Ginocchio & Bro.	10 00
One box caps—E. Ginocchio & Bro.	85
Freight—E. Ginocchio & Bro.	60
Two hundred feet fuse—E. Ginocchio & Bro.	1 25
Seventy-four pounds ground barley—E. Ginocchio & Bro.	1 11
Paint—E. Ginocchio & Bro.	50
One whitewash brush—J. M. Levy	85
One can coal oil—J. M. Levy	1 50
One paint brush—J. M. Levy	25
Ten thousand pamphlet envelopes—H. S. Crocker & Co.	37 50
Six barrels land plaster—Lucas & Co.	12 90
Can for tree wax—Hewitt Bros.	35
Tin for flushing—Hewitt Bros.	1 00
Putty—Hewitt Bros.	1 00
One keg white lead—J. M. Levy	1 75
Linseed oil—J. M. Levy	50
Turpentine—J. M. Levy	50
Castor oil—J. M. Levy	60
Dusters—J. M. Levy	50
Gutter moldings—J. M. Levy	7 25
Pick and handle—J. M. Levy	1 25
One can coal oil—J. M. Levy	1 50
Repairing plow—Cox & Williams	1 50
Steel wedges—Cox & Williams	4 40
Two sledge runners—Cox & Williams	5 00
Chain and rings—Cox & Williams	1 25
Steeling picks—Cox & Williams	1 00
Sharpening picks—Cox & Williams	25
Bolts and nuts—Cox & Williams	25
One ton hay—O. F. Manock	6 50
One cord wood—A. Lustfield	4 50
Repairing harness—T. F. Hood	40
Two brushes and comb—T. F. Hood	1 20
Two straps and one set washers—T. F. Hood	35
Repairing harness—T. F. Hood	40
One buggy shaft—J. Hollopeter	3 00
One crossbar—J. Hollopeter	2 00
One singletree—J. Hollopeter	1 50
One pickax—Geo. F. Bell	75
One nail puller—Geo. F. Bell	3 00
One can kerosene—Geo. F. Bell	1 65
One bottle castor oil—Geo. F. Bell	50
One bottle turpentine—Geo. F. Bell	15
Rope—Geo. F. Bell	15
One thousand four hundred and fifty-five pounds barley hay—Geo. Rinehart & Bros.	14 55
Hay—Geo. F. Bell	3 00
Ten sacks barley—Geo. F. Bell	8 50
Three and one half pounds chain—E. Ginocchio & Bro.	55
Two hundred and fifty pounds barley—E. Ginocchio & Bro.	3 75
Three horseshoes—Cox & Williams	1 50
Links in chain—Cox & Williams	30
Two shoes—Cox & Williams	1 00
Paint and brush—E. Ginocchio & Bro.	90
Two hundred and twenty-two pounds barley—E. Ginocchio & Bro.	3 35
Two cords wood—A. Lustfield	9 00
One ton alfalfa hay—O. F. Manock	6 50
One 2-gallon demijohn—J. Goldman & Co.	\$1 25
Fifty pounds 10d nails—J. Goldman & Co.	2 75
Two kegs 8d nails—J. Goldman & Co.	11 00
One keg 20d nails—J. Goldman & Co.	4 50
One thousand one hundred and thirty-five pounds barley—J. Goldman & Co.	14 19
Sixteen pounds 10d nails—J. Goldman & Co.	88
	\$34 57
Less error in charges of nails	19 13
Six thousand two hundred and seventy pounds hay—J. N. Bryant	15 44
Rope—Geo. F. Bell	28 20
One thousand and ninety pounds barley, ground—Geo. F. Bell	35
Six sacks barley seed—Geo. F. Bell	10 35
	4 50

DISBURSEMENTS—Continued.

Slate—Geo. F. Bell	\$0 50
Envelopes—Geo. F. Bell	25
One paint brush—F. M. Farwell	1 00
Three thousand envelopes—H. S. Crocker & Co.	6 75
One hundred feet galvanized spiral pipe—W. W. Montague & Co.	14 25
Five apricot trees—California Nursery Co.	1 00
Nine pear trees—California Nursery Co.	1 35
Four peach trees—California Nursery Co.	1 10
Three nectarine trees—California Nursery Co.	90
Fifty-three apple trees—California Nursery Co.	8 65
Two quince trees—California Nursery Co.	50
Two cherry trees—California Nursery Co.	50
Seven filbert trees—California Nursery Co.	2 80
Two chestnut trees—California Nursery Co.	1 25
Three fig trees—California Nursery Co.	1 15
Five plum trees—California Nursery Co.	1 70
Ten prune trees—California Nursery Co.	2 90
Forty currant cuttings—California Nursery Co.	4 00
Thirty gooseberry cuttings—California Nursery Co.	4 00
Sixty blackberry cuttings—California Nursery Co.	4 50
Sixty strawberry plants—California Nursery Co.	90
Eighty raspberry cuttings—California Nursery Co.	3 20
Packing—California Nursery Co.	35
Five apricot trees—California Nursery Co.	1 00
Four pear trees—California Nursery Co.	80
Two nectarine trees—California Nursery Co.	60
Three almond trees—California Nursery Co.	1 50
Five plum trees—California Nursery Co.	1 30
Twelve prune trees—California Nursery Co.	3 75
Plum trees—California Nursery Co.	40
One fig tree—California Nursery Co.	1 00
Two chestnut trees—California Nursery Co.	1 25
Two pomegranate trees—California Nursery Co.	80
Thirty currant cuttings—California Nursery Co.	3 00
Thirty gooseberry cuttings—California Nursery Co.	4 00
Sixty blackberry cuttings—California Nursery Co.	4 50
Sixty strawberry plants—California Nursery Co.	90
Eighty raspberry cuttings—California Nursery Co.	3 20
Packing—California Nursery Co.	50
Three apricot trees—California Nursery Co.	75
Seven nectarine trees—California Nursery Co.	1 75
One apple tree—California Nursery Co.	20
Six prune trees—California Nursery Co.	1 80
One plum tree—California Nursery Co.	30
Five fig trees—California Nursery Co.	3 10
Thirty currant cuttings—California Nursery Co.	3 00
Thirty gooseberry cuttings—California Nursery Co.	4 00
Thirty blackberry cuttings—California Nursery Co.	2 25
Sixty strawberry plants—California Nursery Co.	90
Twenty raspberry cuttings—California Nursery Co.	1 00
Packing—California Nursery Co.	35
Three almond trees—California Nursery Co.	75
Two fig trees—California Nursery Co.	1 35
One peach tree—California Nursery Co.	35
Two apricot trees—California Nursery Co.	50
Five nectarine trees—California Nursery Co.	1 50
One pear tree—California Nursery Co.	20
Four apple trees—California Nursery Co.	60
Five prune trees—California Nursery Co.	1 50
Six walnut trees—California Nursery Co.	2 10
Packing—California Nursery Co.	25
Thirty-two apple trees—Leonard Coates	6 40
Nine peach trees—Leonard Coates	1 80
Four pear trees—Leonard Coates	80
Three walnut trees—Leonard Coates	60
Two cherry trees—Leonard Coates	40
Four prune trees—Leonard Coates	80
Twenty almond trees—Leonard Coates	4 00
Eight apricot trees—Leonard Coates	1 60
Packing—Leonard Coates	50
One thousand seven hundred and fifty cuttings—C. J. Wetmore	13 10
Ten bamboo cuttings—H. H. Berger & Co.	4 00
Six orange trees—H. H. Berger & Co.	7 00

DISBURSEMENTS—Continued.

Packing—H. H. Berger & Co.	\$0 50
One cord wood—A. Lustfield.	5 00
Freight on trees—George F. Bell	2 49
Freight on poison—George F. Bell	81
Five gallons kerosene—George F. Bell	1 75
Nine hundred and eighty-five pounds ground barley—George F. Bell	8 45
One thousand two hundred and eighty pounds hay—George F. Bell	7 04
Repairing saw and bolt—W. C. Henderson	25
Repairing spring—W. C. Henderson	1 50
Four horseshoes—W. C. Henderson	1 75
Setting horseshoes—W. C. Henderson	1 00
Fourteen pounds staples—Bennett, Shakelford & LeBlanc	85
Five pound 10d nails—Bennett, Shakelford & LeBlanc	30
Eight olives, Lavayino—F. Lüdemann	2 40
Twelve tea plants—F. Lüdemann	2 00
Four Chamerops excelsa—F. Lüdemann	1 20
Four Erethea edulis—F. Lüdemann	2 40
Four Erethea glauca—F. Lüdemann	1 50
Six Washingtonia—F. Lüdemann	1 50
One box and packing—F. Lüdemann	15
Eighteen apple trees—John Bidwell	4 50
One hundred Thompson's Seedless roots—Sutter County Fruit Co.	6 00
Two thousand eight hundred and thirty-five pounds barley hay—George H. Rinehart & Bros.	35 43
Sixty-seven pounds bran—E. Ginocchio & Bro.	97
Two hundred and twenty-four pounds barley—E. Ginocchio & Bro.	3 91
Freight—E. Ginocchio & Bro.	3 97
Window and staples—E. Ginocchio & Bro.	2 75
One mattock—E. Ginocchio & Bro.	1 50
Two hundred and sixty-two pounds barley—E. Ginocchio & Bro.	6 33
Freight—E. Ginocchio & Bro.	3 69
Two pounds chain—E. Ginocchio & Bro.	30
One ax—J. M. Levy	1 25
Lamp chimney—J. M. Levy	25
One can coal oil—J. M. Levy	1 50
One hayfork—J. M. Levy	1 25
Two door locks—J. M. Levy	2 00
Two pair hinges—J. M. Levy	1 00
Eight pounds rope—J. M. Levy	1 44
Two axes—J. M. Levy	2 50
Five barrels land plaster—San Joaquin Lumber Co.	22 50
Four apple trees—W. R. Strong Co.	80
Four apricot trees—W. R. Strong Co.	1 00
Two ounces eucalyptus seed—Trumbull & Beebe	2 00
Five pounds alfalfa seed—Trumbull & Beebe	50
Eighty grape cuttings—California Nursery Co.	3 50
Fifty Thompson's Seedless vines—Sutter County Fruit Co.	3 00
Four prunes and packing—Felix Gillet	1 75
One and one half cords wood—Andrew Jacobson	6 75
One pair heavy buggy lines—D. O. Hamman	3 25
Three thousand one hundred and sixty-four pounds barley hay—Geo. Rinehart & Bros.	39 55
Four hundred and eleven pounds ground barley—E. Ginocchio & Bro.	7 20
One mattock—E. Ginocchio & Bro.	1 50
Five gallons kerosene oil—Geo. F. Bell	1 50
Sulphur—Geo. F. Bell	25
Wire netting—Geo. F. Bell	80
Two thousand nine hundred and ninety-four pounds hay—Geo. F. Bell	16 44
Castor oil—Geo. F. Bell	25
One empty barrel—Geo. F. Bell	1 25
Ink—Geo. F. Bell	25
One cord wood—A. W. Starr	4 50
One thousand and ten pounds ground barley—J. Goldman & Co.	12 62
One bottle lubricating oil—J. Goldman & Co.	25
Cotton twine—Geo. F. Bell	05
Two thousand three hundred and twenty-five pounds hay—Geo. F. Bell	10 40
Six hundred and forty pounds barley—Geo. F. Bell	6 40
Two pounds white lead—Geo. F. Bell	25
Six pounds shorts—Geo. F. Bell	50
One pound powder—Geo. F. Bell	40
Caps—Geo. F. Bell	10
Repairing halters—T. F. Hood	35
One buggy whip—T. F. Hood	25

DISBURSEMENTS—Continued.

One buggy washer—T. F. Hood	\$0 25
One snapper—T. F. Hood	05
One can harness oil—T. F. Hood	30
One head halter—T. F. Hood	1 25
Twelve porcelain knobs—California Electrical Works	50
One piece gum tubing—W. F. Bowers & Co.	1 00
Six battery zincs—Paul Seiler's Electrical Works	2 40
Twenty-five elm trees—California Nursery Co.	6 25
Twenty-five locust trees—California Nursery Co.	7 00
Fifteen maple trees—California Nursery Co.	4 00
Ten sycamore trees—California Nursery Co.	4 00
Ten walnut trees—California Nursery Co.	5 00
Five Grevillea robusta—California Nursery Co.	1 25
Packing—California Nursery Co.	65
One thousand eight hundred and seventeen pounds barley hay—Geo. H. Rinehart & Bros.	22 70
Two thousand eight hundred and twenty-six pounds barley hay—Geo. H. Rinehart & Bros.	35 30
Screws—J. M. Levy	50
One can coal oil—J. M. Levy	1 62
Axle grease—J. M. Levy	50
One hundred and ninety-five pounds barley—J. M. Levy	3 17
One ax—J. M. Levy	1 25
Seven pounds rope—J. M. Levy	1 40
Two hundred and seventy pounds barley—J. M. Levy	4 39
Burner and wicks—J. M. Levy	50
Seven pounds rope—J. M. Levy	1 40
One box rivets—J. M. Levy	50
Five hundred shakes—F. M. Whitmore	4 50
Two hundred and forty pounds barley—E. Ginocchio & Bro.	4 20
One hundred and forty-five pounds bran—E. Ginocchio & Bro.	2 17
Assorted trees—T. V. Munson	8 15
Eight olive trees—California Nursery Co.	6 00
One hundred and fifty peach trees—Grass Valley Nursery	3 00
Seventy-five apricot trees—Grass Valley Nursery	1 50
Two barrels land plaster—San Joaquin Lumber Co.	9 00
One fork, three hoes—Julius Forrer	3 00
Two 8-inch bolts—Julius Forrer	20
Repairing and furnishing halter straps—Julius Forrer	1 75
Currycomb and brush—Julius Forrer	1 38
Expressage on hose—Julius Forrer	90
Freight on pump—Julius Forrer	1 35
Trimming horse's feet—Julius Forrer	50
One bolt for gatepost	25
One hundred and ninety-five pounds barley—J. M. Levy	3 67
Powder, shot, and wads—J. M. Levy	1 20
Plow-points—J. M. Levy	2 25
Soap and blind—J. M. Levy	1 25
One keyhole saw—J. M. Levy	50
One gallon castor oil—J. M. Levy	1 75
One hundred and eighty pounds barley—J. M. Levy	3 15
Freight on cuttings—E. Ginocchio & Bro.	1 00
Window fasteners—E. Ginocchio & Bro.	75
One hundred and eighty-three pounds barley—E. Ginocchio & Bro.	3 20
Freight—E. Ginocchio & Bro.	35
One hundred and seventy-five pounds barley—E. Ginocchio & Bro.	3 06
One hundred and fifty pounds bran—E. Ginocchio & Bro.	2 25
Two dozen hooks and paint—E. Ginocchio & Bro.	1 75
Expressage—E. Ginocchio & Bro.	1 75
Rivet punch—E. Ginocchio & Bro.	50
Lard oil—E. Ginocchio & Bro.	1 00
One thousand seven hundred and forty pounds barley—Geo. Rinehart & Bros.	21 75
Platture blowpipe—D. Van Nostrand & Co.	4 20
Two thousand and seventy 4-foot grape stakes—Santa Cruz Lumber Co.	28 98
One thousand six hundred and fifty 6-foot grape stakes—Santa Cruz Lum. Co.	33 00
Two thousand and seventy 4-foot grape stakes—Santa Cruz Lumber Co.	28 98
One thousand six hundred and fifty 6-foot grape stakes—Santa Cruz Lum. Co.	33 00
Two thousand and seventy 4-foot grape stakes—Santa Cruz Lumber Co.	28 98
One thousand one hundred and thirty 6-foot grape stakes—Santa Cruz L. Co.	22 60
Three sets sieves—Justinian Caire	8 50
Books for laboratory—Hunt & Eaton	14 22
One hundred and fifty drill sample bags—Neville & Co.	17 50

DISBURSEMENTS—Continued.

Two hundred and fifty feet 16-foot redwood—Henry W. Taylor.....	\$18 00
Two hundred and fifty feet 16-foot redwood—Henry W. Taylor.....	
Five hundred redwood boards—Henry W. Taylor.....	

\$1,551 31

APPENDIX No. 3 W—*Agricultural Experiment Stations—Tools, Implements, and Machinery.*

Six feet red strip belt—Woodin & Little	\$1 32
Six lace strings—Woodin & Little	35
Six lag screws—Woodin & Little	50
Two machine bolts—Woodin & Little	25
Repairing cultivator—Cox & Williams	75
Two clevises and hooks—Cox & Williams	2 35
Four new shoes—Cox & Williams	2 25
Repairing cultivator—Cox & Williams	1 25
Frames and nut—Cox & Williams	1 10
Two pair chain tongs—Woodin & Little	11 00
Two pair Brown's tongs—Woodin & Little	4 00
Two 1½-inch hose bibbs—Woodin & Little	13 34
Two 1-inch hose bibbs—Woodin & Little	3 00
One 1-inch Plu. hose bibb—Woodin & Little	1 45
Three 1½-inch unions—Woodin & Little	1 05
Three 1-inch unions	60
Three 1½-inch tees—Woodin & Little	75
Three 1-inch tees—Woodin & Little	45
Two 1-inch ells—Woodin & Little	20
Packing and cartage—Woodin & Little	50
One tightening pulley—Woodin & Little	27 00
Cartage—Woodin & Little	50
Horseshoes—Cox & Williams	2 00
Wrench—Cox & Williams	50
One neckyoke—Cox & Williams	1 50
Sharpening mattocks and drills—Cox & Williams	1 30
One spray pump and hose—Bean Spray Pump Co.	30 56
One rotary harrow—Byron Jackson	25 00
One spray pump and hose—Robert Menzel	35 00
One duplex stock and die, with cutter—Huntington-Hopkins Co.	23 80
Two Sanders' pipe cutters—Huntington-Hopkins Co.	5 63
One Parker's pipe vise—Huntington-Hopkins Co.	11 20
Six singletrees; six pair leathers—G. G. Wickson & Co.	6 00

\$216 45

APPENDIX No. 3 X—*Agricultural Experiment Stations—Scientific Instruments.*

Three arrow vanes and packing—Howe Scale Co.	\$36 75
One spectroscope and charges—A. Krüss, Hamburg	138 05
Customs charges on one case—George W. Reed	6 15
One amperometer—Pacific Electric Storage Co.	32 40

\$213 35

APPENDIX No. 3 Y—*Agricultural Experiment Stations—Traveling Expenses.*

Two trips to Shaws—F. T. Bioletti	\$7 00
Two trips to Shaws—F. T. Bioletti	8 05
Traveling expenses of W. G. Klee:	
Berkeley to Santa Clara	1 35
Horse and buggy	3 00
Hotel bill and supper	1 50
San José to Berkeley	1 35
Berkeley to Irvington and return	1 70
Stage from Mission to Irvington	25
Board and lodging at Irvington	1 00
Meals at Niles	35
Berkeley to Tulare	7 75
Sleepers and breakfast	2 00
Hotel bill at Tulare	6 50
Telegram to Fresno	25
Visalia, one meal	75
Porterville expenses	75
Porterville to Fresno	3 50
Dinner at Fresno	50
Telegram to San Francisco	80

DISBURSEMENTS—Continued.

Supper at Fresno.....	\$0 50
Fresno to Berkeley.....	6 00
Supper and breakfast.....	2 00
Expenses on package from San Diego.....	45
Gopher traps for Tulare.....	2 25
Oil soap for Paso Robles.....	1 00
Two trips to San Francisco.....	50
Expenses of E. W. Hilgard during July.....	33 63
Expenses of E. W. Hilgard during August.....	11 60
Expenses of W. G. Klee during September.....	11 10
Expenses of W. G. Klee during October.....	32 45
To Mountain View and return—M. E. Jaffa.....	2 00
Buggy hire—M. E. Jaffa.....	2 00
Expenses of L. E. Benton at Cupertino and Mission San José during vintage.....	54 85
Stockton and return—E. J. Wickson.....	5 00
Los Guillocos and return—F. T. Bioletti.....	4 60
Fresno and return—E. J. Wickson.....	11 80
Buggy hire—E. J. Wickson.....	3 00
Expenses to city and return—November and December—L. W. Maslin.....	2 60
Expenses of W. G. Klee during December.....	28 75
Expenses of F. T. Bioletti.....	1 25
Los Guillocos and return—F. T. Bioletti.....	3 50
Los Guillocos and return—Louis Paparelli.....	3 50
Obtaining cuttings—L. E. Benton.....	15 60
Expenses of W. G. Klee during March.....	47 80

\$336 08

APPENDIX No. 3 Z—*Agricultural Experiment Stations—Water Supply.*

One pulley, 26-inch diameter—Woodin & Little.....	\$10 50
Four feet iron—Cox & Williams.....	1 40
Wildrod—Cox & Williams.....	50
Seventy-five pounds iron—Cox & Williams.....	9 00
Pipe and bolts—Cox & Williams.....	5 50
Nuts and washers—Cox & Williams.....	3 80
Fixing rod—Cox & Williams.....	1 00
Two plates—Cox & Williams.....	1 00
One spindle—Cox & Williams.....	50
Four shoes—Cox & Williams.....	2 00
Two bolts—Cox & Williams.....	80
Repairing cultivator—Cox & Williams.....	75
Cutting cranks—Cox & Williams.....	75
Repairing hooks—Cox & Williams.....	10
Thirty-five pounds spikes—E. Ginocchio & Bro.....	1 45
Six lag screws—E. Ginocchio & Bro.....	75
Butts and washers—E. Ginocchio & Bro.....	1 15
Freight—E. Ginocchio & Bro.....	50
Pipe and punch—Hewitt Bros.....	2 15
Bolt and union—Hewitt Bros.....	90
Twenty-six and one half feet pipe—Hewitt Bros.....	2 12
Nine fittings—Hewitt Bros.....	1 13
Cutting pipe—Hewitt Bros.....	25
Labor during July on waterworks at Jackson.....	213 10
Labor during August on waterworks at Jackson.....	133 35
Castings, bolts, etc., for water gates—Donnelly & Howard.....	14 00
One thousand three hundred and forty-seven feet lumber—L. Newman & Co.....	29 41
One hundred and thirty and one half feet $1\frac{1}{2}$ -inch pipe—A. T. Cotton.....	21 90
One pump—A. T. Cotton.....	4 00
Two elbows—A. T. Cotton.....	60
Laying pipe and pump—A. T. Cotton.....	8 50
Six barrels Portland cement—Moore & Smith Lumber Co.....	25 50

\$498 36

APPENDIX No. 4—*College of Agriculture.*

Labor for the month of July.....	\$406 50
Labor for the month of August.....	450 95
Expressage for the month of June—Patterson & Co.....	10 00
Expressage for July and August—Wells, Fargo & Co.....	11 25
Expressage for September—Wells, Fargo & Co.....	55 40
Labor for month of September.....	393 95
Thirty-two loads manure—Joseph McKeown.....	16 00
Freight on twenty-one boxes grapes—Southern Pacific Co.....	85

DISBURSEMENTS—Continued.

Baling fifty-three bales hay—John Myers	\$13 40
Expressage for September and October—Wells, Fargo & Co.	104 10
Three thousand two hundred cubic feet gas—Oakland Gas Co.	8 80
Four thousand seven hundred cubic feet gas—Oakland Gas Co.	12 95
Clerical services of J. D. Layman	2 50
Expressage for July, August, and September—Patterson & Co.	28 75
Six thousand nine hundred cubic feet gas—Oakland Gas Co.	19 00
Repairing shears—Nelson & McLellan	35
Repairing garden shears—Nelson & McLellan	1 00
Hook for scales—Nelson & McLellan	50
Eight new shoes—Nelson & McLellan	4 00
Sharpening one chisel—Nelson & McLellan	15
Labor for month of October	417 95
One reach—Nelson & McLellan	1 00
Two new handles to saw—Nelson & McLellan	1 25
Sharpening four picks—Nelson & McLellan	1 20
Eight new shoes—Nelson & McLellan	4 00
Sharpening two picks—Nelson & McLellan	30
Sharpening two picks—Nelson & McLellan	30
Sharpening one pick—Nelson & McLellan	15
Sharpening two picks—Nelson & McLellan	30
Repairing wagon yoke—Nelson & McLellan	1 25
Expressage October and November—Wells, Fargo & Co.	11 80
Expressage October—Patterson & Co.	4 25
Four thousand eight hundred cubic feet gas—Oakland Gas Co.	13 20
Two thousand one hundred feet gas—Oakland Gas Co.	5 80
Labor for month of November	426 95
Six thousand cubic feet gas—Oakland Gas Co.	15 00
Eleven thousand three hundred cubic feet gas—Oakland Gas Co.	22 50
Expressage during December—Wells, Fargo & Co.	4 30
Labor for the month of December	441 95
Seed bags—Ames & Detrick	8 00
Twenty-five pounds carrot seed—Reddington & Co.	3 75
Sharpening two shares—Nelson & McLellan	50
Eight new shoes—Nelson & McLellan	4 00
Sharpening one share—Nelson & McLellan	25
Sharpening two shares—Nelson & McLellan	75
Hooks for singletree—Nelson & McLellan	50
Repairing forks—Nelson & McLellan	1 50
Expressage during November—Patterson & Co.	2 25
Expressage during November—Wells, Fargo & Co.	7 75
Labor for month of January	394 50
Expressage during January—Wells, Fargo & Co.	10 15
Expressage during December—Patterson & Co.	1 50
Half ton barley—Stewart & Trowbridge	11 00
Half ton bran—Stewart & Trowbridge	8 50
Expressage during January—Patterson & Co.	4 00
Fifteen thousand four hundred cubic feet gas—Oakland Gas Co.	38 50
Sixteen thousand three hundred cubic feet gas—Oakland Gas Co.	40 75
Expressage during February—Wells, Fargo & Co.	37 90
Labor for month of February	732 40
Expressage during February—Patterson & Co.	3 50
Thirteen thousand cubic feet gas—Oakland Gas Co.	32 50
Eight new shoes—Nelson & McLellan	4 00
Repairing sprinkler—Nelson & McLellan	50
One plow clevis—Nelson & McLellan	35
Chain, and sharpening shares—Nelson & McLellan	75
Sharpening fifty-six harrow teeth—Nelson & McLellan	1 60
Repairing hinges and new bolts—Nelson & McLellan	1 50
Sharpening two shares—Nelson & McLellan	50
Postage stamps—N. B. Byrne	25 00
Expressage during March—Patterson & Co.	2 00
Telegrams—Western Union Telegraph Co.	6 81
Expressage during March—Wells, Fargo & Co.	27 25
Labor for month of March	752 40
Ten sacks oats—Paul Keyser	13 60
Expressage during April—Wells, Fargo & Co.	25 60
Labor for month of April	514 60
One ton coal—Stewart & Trowbridge	12 00
Repairing cart chain—Nelson & McLellan	25
Sharpening two shares—Nelson & McLellan	50
Eight new shoes—Nelson & McLellan	4 00
Sharpening two shares—Nelson & McLellan	50

DISBURSEMENTS—Continued.

Two bolts for cultivator—Nelson & McLellan	\$0 25
Four teeth for cultivator—Nelson & McLellan	2 50
Telegrams during March—Western Union Telegraph Co.	2 38
Expressage ten sacks oats—Patterson & Co.	2 00
Expressage five boxes trees—Patterson & Co.	1 75
Freight on five boxes trees—Southern Pacific Co.	12 15
Expressage one box maps—Patterson & Co.	50
Expressage one pair scales—Patterson & Co.	75
Expressage twelve chairs—Patterson & Co.	2 00
Expressage one box soda—Patterson & Co.	75
Expressage one box instruments—Patterson & Co.	1 00
Thirty-five square feet felting—Justinian Caire	4 00
One pneumatic trough—Justinian Caire	8 00
Twenty-two pounds sulphuric acid—Justinian Caire	7 20
Five pounds caustic potash—Justinian Caire	4 05
Two pounds sodium oxide—Justinian Caire	1 50
Ten pounds oxalic acid—Justinian Caire	2 20
One ounce chloride platinum—Justinian Caire	6 60
One quart bisulphide carbon—Justinian Caire	60
Glass wool—Justinian Caire	1 00
One platinum crucible and cover—Justinian Caire	18 87
One hydrogen generator—Justinian Caire	9 00
Two aspirating bottles—Justinian Caire	2 15
Two stands—Justinian Caire	2 50
Zinc—Justinian Caire	60
Assorted rubber tubing—Justinian Caire	5 00
Four burner flanges—Justinian Caire	1 25
Three pounds petroleum ether—Justinian Caire	2 25
Three pounds chloroform—Justinian Caire	2 25
Five bulb tubes—Justinian Caire	3 00
Five pounds rock sugar—Justinian Caire	85
Two potash tubes—Justinian Caire	1 50
Two nests crucibles—Justinian Caire	75
Assorted corks—Justinian Caire	5 00
Bungs for kegs—Justinian Caire	2 25
One dozen 1-gallon demijohns—Justinian Caire	3 60
One dozen 2-gallon demijohns—Justinian Caire	5 40
One half dozen 3-gallon demijohns—Justinian Caire	3 60
Two hose couplings—Justinian Caire	50
Nails—Justinian Caire	1 00
Expressage during May—Wells, Fargo & Co.	14 00
Thirty-six county maps of California—E. M. Sleator	235 50
One map, California—E. M. Sleator	7 00
One map, Central California—E. M. Sleator	4 50
One map, Southern California—E. M. Sleator	4 00
Labor for month of May	454 00
One ton barley—Stewart & Trowbridge	26 00
Five hundred pounds bran—Stewart & Trowbridge	4 25
Blacksmithing during May—Nelson & McLellan	5 75
Expressage during May—Patterson & Co.	5 20
Plowing on mountain—John Stutt	35 00
Seven thousand seven hundred cubic feet gas—Oakland Gas Co.	19 25
Two thousand one hundred cubic feet gas—Oakland Gas Co.	4 75
Seven thousand one hundred cubic feet gas—Oakland Gas Co.	17 75
Three thousand one hundred cubic feet gas—Oakland Gas Co.	7 00
Two carboys—San Francisco Gaslight Co.	5 00
Expressage—Wells, Fargo & Co.	2 45
Moving and repairing building—A. H. Broad	225 00
Glass and porcelain ware—bill of Franz Schilling, Gehlberg, Germany	93 31

\$6,954 22

APPENDIX No. 5—College of Chemistry.

Expressage on one carboy ammonia—Patterson & Co.	\$0 75
Expressage on one case glass—Patterson & Co.	50
Expressage on one flask quicksilver—Patterson & Co.	50
Expressage on three carboys ammonia—Patterson & Co.	2 25
Expressage on two cases—Patterson & Co.	75
Expressage on one case, one pot—Patterson & Co.	1 00
Freight on five cases glass from Hamburg—Wm. Wolff & Co.	61 23
Freight on one case porcelain from Hamburg—Wm. Wolff & Co.	
Freight on eleven cases glass from Hamburg—Wm. Wolff & Co.	
Insurance—Canton Insurance Co.	5 64

DISBURSEMENTS—Continued.

Eight hundred cubic feet gas—Oakland Gas Co.	\$2 20
Six hundred cubic feet gas—Oakland Gas Co.	1 65
Custom fees on seventeen cases—Geo. W. Reed	4 60
Twenty pounds caustic soda—T. W. Jackson & Co.	2 00
Fifty pounds plumbago—Pacific Graphite Manufacturing Co.	2 50
Expressage on seventeen cases apparatus—Patterson & Co.	15 00
Expressage on one package—Patterson & Co.	25
Four thousand six hundred cubic feet gas—Oakland Gas Co.	12 65
Insurance—Canton Insurance Co.	23 49
Custom fees on one case—Geo. W. Reed	4 20
Thirty pounds caustic soda—T. W. Jackson & Co.	3 00
Freight on one case china from Hamburg—Wm. Wolff & Co.	4 84
Expressage on two boxes glass—Patterson & Co.	50
Expressage on one box graphite—Patterson & Co.	35
Expressage on two cases soda—Patterson & Co.	25
Expressage on one carboy acid—Patterson & Co.	1 00
Expressage on two boxes—Patterson & Co.	75
Eight thousand seven hundred cubic feet gas—Oakland Gas Co.	23 95
Seven hundred cubic feet gas—Oakland Gas Co.	1 95
One hundred gms. carbozal—Justinian Caire	5 50
Twenty-one and one half feet wire cloth—Justinian Caire	9 03
Three pair tongs—Justinian Caire	3 75
Four pounds cyanide potash—Justinian Caire	2 60
Ten pounds com. cyanide potash—Justinian Caire	3 30
Eight thousand five hundred cubic feet gas—Oakland Gas Co.	21 25
Twelve thousand one hundred cubic feet gas—Oakland Gas Co.	24 25
One carboy sulphuric acid—Golden City Chemical Works	32 30
Two carboys muriatic acid—San Francisco Chemical Works	8 22
Expressage on one box—Patterson & Co.	25
Expressage on two carboys—Patterson & Co.	1 50
Two 3-gallon retorts—Justinian Caire	6 00
One 4-gallon retort—Justinian Caire	4 00
Twenty pounds sub. sulphur—Justinian Caire	1 00
Five pounds lamp black—Justinian Caire	1 25
Five pounds soda acetate—Justinian Caire	3 00
Twenty pounds borax—Justinian Caire	2 00
Twenty pounds copper—Justinian Caire	4 80
Expressage, one box glass—Patterson & Co.	25
Expressage, two carboys acid—Patterson & Co.	1 50
Expressage, one package—Patterson & Co.	25
Stationery—Payot, Upham & Co.	3 00
Expressage, sheet iron, one case—Patterson & Co.	1 00
Expressage, one box, one can—Patterson & Co.	50
Four thousand one hundred cubic feet gas—Oakland Gas Co.	10 25
Four thousand cubic feet gas—Oakland Gas Co.	10 00
Five gallons China nut oil—Justinian Caire	5 00
Sheet iron—Justinian Caire	1 10
Six pinch cocks—Justinian Caire	1 50
One chisel—Justinian Caire	75
One saw—Justinian Caire	1 00
Sheet copper—Justinian Caire	1 55
Fifteen pounds oxalic—Justinian Caire	3 00
Five gallons linseed oil—Justinian Caire	3 75
Five gallons shellac—Justinian Caire	2 00
Four assorted brushes—Justinian Caire	1 50
Five gallons turpentine—Justinian Caire	3 50
Candles—Justinian Caire	60
Two charcoal saws—Justinian Caire	1 00
Two burette stands—Justinian Caire	3 00
One gallon asphaltum varnish—Justinian Caire	90
Expressage on one box oil—Patterson & Co.	35
Freight on thirty-four cases and one cask apparatus from Hamburg—Wm. Wolff & Co.	72 85
Eight thousand one hundred cubic feet gas—Oakland Gas Co.	20 25
Expressage on six cases apparatus—Patterson & Co.	3 00
Expressage on twenty-five cases apparatus—Patterson & Co.	14 00
Expressage on five cases apparatus—Patterson & Co.	3 50
Expressage on two boxes hardware—Patterson & Co.	50
Expressage on one wood grating—Patterson & Co.	35
Traveling expenses—W. B. Rising	600 00
Five quires gummed paper—Students Coöperative Association	3 00
Custom fees on thirty-five cases chemicals—Geo. W. Reed	4 60

DISBURSEMENTS—Continued.

Bill of E. de Haën, Hanover, Germany, in marks; total in dollars and cents:

One barrel ferrum sulfuratum.....	M. 15,85
Two kr. acetum purum.....	5.20
Two kr. acidum acetic.....	3.50
Ten kr. acidum acetic pur.....	10.00
One kr. acidum butyric pur.....	5.40
Ten kr. acidum carbolic hell.....	5.00
One kr. acidum formicic.....	5.00
One half kr. acidum valerianic.....	7.50
One kr. arracessenz.....	4.00
One kr. æther butyric.....	2.75
One kr. æther formicic.....	1.50
Fifty æther cœnanthicus.....	6.00
One half kr. runiessenz.....	1.50
One kr. bromum, chem. rein.....	5.00
Two kr. chloroform, pur.....	7.20
Five kr. glycerine, dopp.....	7.00
Case.....	4.00
Two kr. acid, benzoic.....	9.00
One kr. acid, carbolic.....	4.50
Five kr. acid, chromic.....	10.00
One kr. acid, oxalic.....	6.00
Two kr. acid, oxalic, pur.....	4.00
One half kr. acid, phosphoric.....	4.50
One half kr. acid, phthalicum.....	5.00
Two kr. alumin natric.....	2.60
One half kr. alumin oxydat. hydr.....	1.60
One kr. calcium acetic.....	3.00
One kr. ferrid cyankalium.....	6.00
Two kr. ferro cyankalium.....	6.00
Five kr. glycerine, dopp. dest.....	8.00
Two kr. kalium bicarbonic.....	2.60
Two kr. kalium carbonic.....	3.60
One kr. cyanatum, 98 per cent.....	5.00
Two kr. kalium cyanatum, 60 per cent.....	7.00
One case.....	4.00
One kr. acidum arsenic.....	2.50
One kr. acidum arsenicos.....	3.25
One kr. acidum carbolic.....	3.25
One kr. acidum chromic.....	7.50
One kr. acidum chromic purum.....	3.70
One kr. acidum citricum.....	5.00
One half kr. acidum gallic.....	4.00
One half kr. acidum molybdenic.....	6.50
One kr. acidum phosphoric.....	4.20
One quarter kr. acidum pyrogallic.....	7.50
One half kr. acidum salicylic.....	7.00
One half kr. acidum succinic.....	5.00
One kr. acidum tartaric, crist.....	3.20
One kr. acidum tartaric, plu.....	3.40
One half kr. acidum tartaric, puriss.....	2.00
Twenty one hundredths acidum vanadinic, puriss.....	12.00
Fifty one hundredths acidum vanadinic, technic.....	8.50
One half kr. acidum wolfranic, puriss.....	10.50
Two kr. acidum wolfranic, purum.....	9.00
One kr. baryum peroxydat, anh.....	2.00
One kr. baryum peroxydat, hydric.....	3.30
One half kr. cadmium metallic.....	2.50
One kr. cerium oxalic oxyd.....	6.50
One half kr. cuprum oxydat.....	4.00
One half kr. iodum resubl.....	16.00
One half kr. kalium caustic, pur.....	6.00
Three kr. kalium caustic.....	9.60
Three kr. natrium caustic.....	9.90
One kr. natrium caustic puriss.....	18.00
One kr. natrium nitrosum puriss.....	4.50
Case.....	4.00
One kr. alumin. chlorat.....	3.80
One kr. alumin. nitric.....	5.50
One kr. ammonium acetic.....	4.80
One kr. ammonium bicarbonic.....	4.00
One kr. ammonium bichromic.....	4.00

DISBURSEMENTS—Continued.

One half kr. ammonium fluorat	M. 3.00
One kr. ammonium nitric	1.90
One kr. ammonium oxalic	2.50
One kr. ammonium sulphuros	6.00
One kr. arsenicum metallic	1.00
One baryum oxydat	1.50
One kr. baryum rhodanat	5.00
One half kr. calcium carbonic	1.50
One half kr. calcium chromic	2.75
Two kr. calcium oxydat	1.50
One half kr. calcium rhodanat	2.50
One half kr. calcium sulfuros	1.00
One kr. chloralhydrat crist.	8.00
One half kr. cobalt carbonic	11.25
One half kr. cobalt chlorat	7.50
One half kr. cobalt nitric	5.00
One half kr. cobalt oxalic	9.00
One half kr. cuprum acetic	1.50
One half kr. cuprum ammon. chlorat	2.00
One half kr. cuprum chromic	2.50
One half kr. cuprum oxydat	2.30
One half kr. cuprum rhodanat	4.50
One kr. cuprum oxydulat	5.00
One kr. ferrid ammon. sulfur.	2.00
One half kr. ferrum acetic	7.50
Two kr. ferrum chlorat	3.00
One kr. ferrum chromic	3.50
One kr. ferrum oxydat	2.00
One kr. ferrum sesqui chlorat	1.00
One kr. hydrarg. amidat. bichlorat	7.60
One kr. hydrarg. bichlorat	6.20
One kr. hydrarg. chlorat	7.00
One kr. hydrarg. oxydat	7.80
One half kr. hydrarg. rhodanat	5.50
Two kr. hydrarg. sulfuric oxydat	10.40
Case	4.00
100.0 alumin metallic	8.00
One half kr. asbest. langfaserig	1.50
Ten kr. calc. carbonic	8.00
Five kr. ferro ammon. sulfuric	3.00
Ten kr. infusorienerd	3.00
One kr. kalmin acetic	3.50
One kr. kalmin acetic dep.	2.30
One half kr. kalmin aethylosulfuric	4.50
Two kr. kalmin bichromic	3.00
One kr. kalmin bioxalic	1.80
One kr. kalmin. chloric	1.80
One case	4.00
Ten kr. alumen. ammoniacale	4.00
Five kr. alumen. chromic	2.00
Ten kr. ammon. carbonic, albis.	8.00
Five kr. ammon. carbonic, pulv.	5.00
Two kr. ammon. carbonic, puriss.	2.60
Ten kr. ammon chlorat, puriss.	8.00
Case and packing	79.95

M. 715.35

Less $1\frac{1}{2}$ per cent 10.73

M. 704.62

Bill of C. A. F. Kahlbaun, Berlin, in marks; total in dollars and cents:

One hundred gr. acetal	M. 6.00
One hundred gr. aceton-natruimbisulfit	1.50
Twenty gr. acetophenon	1.60
Fifty gr. aconitsäur	11.00
Five gr. aethylamin	2.00
Twenty gr. aethylsulfhydrat	5.00
Five gr. dimethylamin	15.00
One hundred gr. aethylamin lösung	12.00
Ten gr. aethylaminsulfat	2.00
Ten gr. aethylbenzol	2.70
One kg. aethylbromid	8.00
Twenty gr. aethylcapronat	2.40

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DISBURSEMENTS—Continued.

Twenty gr. aethylcapronat	M. 2.00
Twenty gr. aethylchloracetat	.50
Fifty gr. aethylcyanid	9.00
Fifty gr. aethyldichloracetat	4.50
Fifty gr. aethyldisulfid	9.00
Twenty-five gr. aethylenalcohol	10.00
Twenty-five gr. aethyldenchlorid	2.50
Fifty gr. aethylisobutyrat	3.50
Fifty gr. aethylpropionat	3.00
One hundred gr. aethylschwefelssur barium	.75
One hundred gr. aethylschwefelssur kalium	.50
One hundred gr. aethylschwefelssur natrium	.45
Fifty gr. aethyltrichloracetat	3.00
Twenty gr. alanin	6.00
Twenty gr. allyl-acetat	3.00
Fifty gr. allyl-bromid	5.00
Fifty gr. allyl-iodide	5.00
Twenty gr. allyl-sulfid	6.00
Twenty gr. allyl-sulfocarbomid	2.40
Twenty gr. alphetoluylsäure	1.00
One hundred gr. ameissensäure cryst.	3.00
One hundred gr. ameissensaures ammon.	3.50
Fifty gr. amidobenzoessäure	7.50
Ten gr. amidoessigsäure	6.00
Ten gr. amidopropionsäure	3.00
One kg. ammoniumsulfocyanat	3.50
Five gr. amylaminchlorhydrat	.75
Fifty gr. amyl butyrat	5.00
Twenty gr. amyl cyanid	4.00
One hundred gr. amyl nitrit	1.00
Fifty gr. amyl schwefelsaures barium	.50
Fifty gr. amyl schwefelsaures kalium	.40
Fifty gr. amyl schwefelsaures natrium	.40
Twenty gr. amyl sulfhydrat	6.00
Twenty gr. amyl sulfid	4.80
Twenty gr. amyl sulfoeyanat	4.00
Fifty gr. anisol	5.00
Twenty gr. anissäure	6.00
Ten gr. arbutin	1.50
One hundred gr. asparagin	6.00
Twenty gr. asparaginsäure	6.00
Ten gr. atropin. cryst.	6.00
Twenty gr. benzachlorid	1.10
Fifty gr. benzanilid	2.50
Fifty gr. benzoessäure anhydrid	5.00
One hundred gr. benzoessäure calcium	1.60
One hundred gr. benzoessäure natrium	.50
One hundred gr. benzoessäure kalium	.80
Twenty gr. benzonitril	1.80
One hundred gr. Bernstein's ammon.	1.20
Ten gr. brenzcatechin	4.00
Five hundred gr. bariumcarbonat I	2.00
Four kg. bariumcarbonat II	5.20
One half kg. bariumhyperoxydhydrat	3.25
One half kg. bariumoxyd	4.50
One kg. bariumsulfid	3.70
One kg. bleicarbonat	3.50
One kg. bleichromat	3.50
One kg. bleihyperoxyd	3.50
One kg. cadmium	6.50
One hundred gr. cadmium chlorid	.90
One hundred gr. cadmium nitrat	.65
One hundred gr. cadmium sulfat	.90
One hundred gr. cadmium iodid	3.20
One gr. caesium chlorid	6.50
Two kg. calcium carbonat	1.20
Two kg. calcium chlorid, gran.	1.60
One kg. calcium chlorid, stg.	3.50
Ten kg. calcium chlorid, geschen.	4.00
Ten kg. calcium fluorid	3.00
Four kg. calcium oxyd	2.80
Two kg. calcium sulfid	6.00
One half kg. chrom hydrat	2.00

DISBURSEMENTS—Continued.

One half kg. chrom oxyd	M. 2.25
Two kg. chrom. säure	24.00
One hundred gr. cobalt	14.00
One kg. cobalt carbonat	20.00
One hundred gr. cobalt chlorid	4.00
One kg. eisen sulfat .....	.90
Ten kg. eisen perchlorid	10.00
Ten kg. eisen sulfid	9.00
Three kg. fluorkieselwassersloffsäure	4.50
Nine tenths gr. indium chlorid	17.10
One kg. iod. resubl.	32.00
One kg. kalium arseniat	4.50
One kg. kalium arsenit	4.50
Five kg. kalium bicarbonat	6.50
One gr. osmiums äure	3.80
Fifty gr. bromal	8.00
Twenty-five gr. bromalhydrat	4.50
Fifty gr. bromessigsäure	5.00
One hundred gr. buttersäures calcium	5.00
One hundred gr. buttersäures natrium	5.00
Twenty gr. butylehloral	2.40
Fifty butylehloral hydrat	2.25
Twenty gr. capronitril	4.00
One hundred gr. caprylacetat	12.00
One hundred gr. carbamid	3.00
Fifty gr. carbamid nitrat	1.50
Fifty gr. carbozol	2.50
Ten gr. cerotinsäure	15.00
Fifty gr. citylalcokol	4.50
Ten gr. chinin	1.20
Twenty gr. chinolin .....	.70
Twenty gr. chlorcrotonsäure	8.00
Twenty gr. chlorbenzol .....	.65
Fifty gr. chlorpikrin	3.50
Twenty gr. citraconsäure	3.20
Twenty gr. coniferin	4.80
Ten gr. conin	3.50
Twenty gr. cumarin	4.40
Twenty gr. cuminol	3.80
Twenty gr. cuminsäure	7.60
Fifty gr. diäthylacetat	3.00
Twenty gr. diäthylacetat amin	4.00
Twenty gr. diäthylacetat chlorhydrat	4.00
Fifty gr. dibromanthracen	5.00
Fifty gr. dichlorbenzol	4.00
Twenty-five gr. dimethylocetat	2.00
Twenty gr. dimethylacetat aminchlorhydrat	8.00
Twenty gr. dulcit	3.60
One hundred gr. essigsäure anhydrid	2.00
Two hundred and fifty gr. acetamid	7.50
One hundred gr. aceton natrium bisulfit	1.50
Ten gr. aesculin	6.00
Twenty-five gr. æthyl cinnamat	2.50
Ten gr. æthylen chlorhydrin	6.00
Twenty gr. æthylen monacetat	7.00
Fifty gr. æthyl malonat	4.00
Fifty gr. æthyl salicylat	1.75
Ten gr. alizarin subl.	4.50
Ten gr. allylamin	3.50
Fifty gr. allyltribromid	5.00
Fifty gr. ameisensaures barium .....	.90
Fifty gr. ameisensaures blei .....	.90
Fifty gr. ameisensaures calcium .....	.90
Fifty gr. ameisensaures kalium .....	.50
Fifty gr. amylbenzoat	1.50
Ten gr. benzophenon	3.00
One hundred gr. bernstimsäures natrium	1.00
Fifty gr. borneol	4.00
Fifty gr. gsobutylehlorid	6.00
One hundred gr. cetyl iodid	11.00
Twenty gr. chininchlorhydrat	1.40
Fifty gr. chloraceton	3.00
Twenty gr. chloracthylenchlorid	1.20

DISBURSEMENTS—Continued.

Two kg. chloroform	M. 9.00
Three kg. chloroform kfl.	11.40
Twenty gr. cuminalcohol	8.00
One hundred gr. cumol (pseudocumol)	6.00
One half kg. cyankalium aus blausäure	9.00
One kg. cyankalium, 96-98 per cent.	4.60
Two hundred gr. dextrin	.80
Fifty gr. diocetonaminoxalat	3.00
Fifty gr. dimethylethyl carbinol	4.00
Two hundred and fifty gr. diphenylamin cryst.	3.00
One half kg. ammonium bicarbonat	2.50
One half kg. ammonium bichromat	2.50
One kg. ammonium bromid	4.50
Five gr. ammonium carbonat	7.50
Ten gr. ammonium carbonat kfl.	10.00
One keg ammonium nitrat	2.30
Half keg antimon	5.50
Three kegs antimon kfl.	4.20
One keg arsen	1.20
Two kegs arsenigsäure	2.00
Half keg arsensäure	1.50
One keg arsensäure kfl.	1.90
One keg antimontrichlorid	6.00
Ten kegs kalium brichromat	17.00
Five kegs kalium hydrat stok	20.00
Five kegs kalium hydrat stg.	22.50
Half keg kalium iodat	20.00
One keg kalium nitrit	6.00
One keg kalium permanganat	2.30
One keg kalium bisulfat	2.25
Half keg kupferoxyd, anal.	4.25
One hundred grains lithiumchlorid	2.50
One keg magnesium carbonat	4.40
Five kegs magnesium sulfat	1.50
Ten grains mangan	9.00
One keg mangan dioxyd	7.50
Half keg molybdaensäure	4.50
One keg natrium bisulfat	1.20
Five kegs natrium carbonat	2.50
Five kegs natrium hydrat	30.00
One keg natrium nitrit	5.00
Ten kegs natrium phosphat	8.50
One keg natronkalk	2.50
Half keg natrium silicat	3.00
Half keg nickelammonsulfat	1.00
One keg nickelcarbonat	5.50
One keg nickelnitrat	5.00
Half keg nickelsulfat	1.25
One keg quecksilberoxyd	8.20
Twenty grains magnesium	1.60
One keg quecksilberchlorid	6.50
One keg schroefel cryst.	1.70
Fifty gr. selen	10.00
Five hundred gr. wismuthnitrat	6.00
Five hundred gr. zink I	2.50
Two kegs zinnbichlorid	3.60
Fifty gr. dibrombenzol	3.00
Fifty gr. caprinsäure	18.50
Fifty gr. carbothialdin	3.00
One hundred kegs eisensulfid kfl.	30.00
Cases and packing	102.90
	M. 1,210.90
10 per cent rebate on M.76.50	7.65
	M. 1,203.25
Less 1½ per cent.	18.05
	M. 1,185.20
Bill of Warmbrunn and Quilitz & Co., Berlin, in marks; total in dollars and cents:	
Ten abdampf schalen, No. 17	M. 73.20
Three abdampf schalen, No. 15	16.20

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DISBURSEMENTS—Continued.

Eight abdampf schalen, No. 15.....	M. 18.30
Forty abdampf schalen, No. 16.....	13.00
Fourteen abdampf schalen, No. 17.....	28.80
Twelve abdampf schalen, No. 18.....	2.24
One abdampf kersel, No. 8.....	9.00
One abtropf schalen, No. 32.....	4.20
One hundred and fifty abdampf schalen, No. 14.....	101.80
One hundred and forty-nine abdampf schalen, No. 14a.....	89.10
Thirty abdampf schalen, No. 10.....	30.00
Twenty-three abdampf schalen, No. 13.....	13.55
Two abdampfkapellen, No. 5.....	1.35
Two hundred and two abdampf schalen, No. 10.....	1.38
Twenty-five abdampf schalen, No. 11.....	56.00
Twenty-seven abdampf schalen, No. 12.....	7.00
One destillir apparate.....	7.00
Two trockenschälchen.....	1.50
One quecksilberwanne.....	1.20
Two pulvercapseln.....	.65
Six casserolen.....	5.75
Five filterhalter.....	2.50
One filtertrockengefässe.....	1.75
Fifteen glühgeschälchen.....	3.25
Six glühschiffchen.....	2.00
Two infundirbüchsen.....	4.70
One infundirbüchsen mit handhaben.....	3.15
Seven krukken mit deckel.....	.75
One lampen platten.....	2.00
Three lampen platten bunsen.....	2.25
Three löffel.....	1.15
One quecksilber-büchsen.....	1.20
Twenty-five reductionstiegel.....	31.25
Ten schmelztiegel.....	4.50
Ninety-five schmelztiegel, conische.....	44.50
Twelve schmelztiegel, porzellan.....	6.00
Twenty-six schmelztiegel, Meissener porzellan.....	8.80
Thirteen schmelztiegel, biscuit porzellan.....	5.50
Three spatel.....	1.40
Two doppelspatel.....	1.35
One retorte mit tubus.....	3.25
One retorte ohne tubus.....	1.50
Two retorte, sanitäts porzellan.....	3.30
One retorte, sanitäts porzellan mit tubus.....	2.75
Three filtrirkörbe von porzellan.....	3.75
Three filtrirkörbe mit lochern.....	3.20
Five trichter von porzellan.....	1.75
Four porzellanplatten.....	6.10
Two porzellanplatten mit lochern.....	3.60
Two porzellangefäss.....	4.20
Four untersatzschalen verschieden.....	.80
Two untersatzschalen mit Stäben.....	.65
One wanne von porzellan.....	5.50
Two filtrirplatten.....	1.00
Five mensuren.....	8.65
One teller nach traube.....	1.25
Ninety glastrichter, glatt.....	23.75
Twenty-eight glastrichter gestreifter.....	8.70
Twenty-four glastrichter glatt mit schräg abgeschiff, Rohr.....	8.90
Twenty glastrichter glatt mit schräg abgeschiff, Rohr und Rand.....	12.20
Twenty-eight sätzen bechergläser ohne ausguss.....	71.00
Four sätzen bechergläser mit ausguss.....	18.10
Seven sätzen bechergläser englische form.....	22.15
One sätzen bechergläser englische form. mit ausguss.....	5.25
Four sätzen bechergläser von braunem glase.....	3.75
Two sätzen bechergläser von braunem glase mit ausguss.....	5.85
Eight sätzen bechergläser cylindrische form.....	63.00
Six sätzen crystallisations ohne ausguss.....	74.50
Two sätzen crystallisation mit ausguss.....	9.50
Twenty cylinder ohnestopfer.....	11.50
Thirty-eight cylinder mit stopfer.....	51.10
Nine cylinder mit fuss und kropf.....	5.65
Nine cylinder.....	7.70
Three quecksilber cylinder.....	3.00
One decantirgläser.....	2.00

DISBURSEMENTS—Continued.

One deplacirungs apparate	M. 5.75
Two gasentbidungsflaschen	8.00
One beobachtungs glocken	11.25
One glashähn	3.00
Two mundstücke von glas .....	.50
Five tropfgläser	1.75
One pneumatische wanne von glas	10.00
One glas cylinder	8.50
Three glaskasten	9.75
Two glaskasten	8.75
One brausepulvergläser .....	.40
One chloroformgläser	1.50
Two chloroformgläser .....	.50
One cobaltflasche .....	.75
One collodiumflasche .....	.30
Nine dosen von glas	9.00
Three dosen von glas	1.65
Two kanne mit tubus	3.90
Three glasglocken	6.20
One schutzglocke	1.50
Eleven filtrirkolben nach bunsen	8.50
Five filtrirkolben mit rohr	5.40
Two naffe von glas	1.50
Two trichter mit deckel	14.00
One trichter nach allihn	3.25
One trichter nach allihn mit tuben	4.50
Two schutztrichter	4.50
Two scheidetrichter mit stopfen	12.25
One scheidetrichter	5.50
One exsiccator nach schesbler	7.00
One exsiccator nach zeichnung	6.50
Two exsiccator	5.50
Two exsiccator	6.50
Two exsiccator nach fresenius	6.50
One exsiccator	5.00
One chlorcalcium cylinder	3.00
Thirty-one abdampf schalen ohne ausguss	11.95
Thirty-two abdampf schalen mit ausguss	14.80
Three hundred and eighteen abdampf schalen uhrglasform	92.25
Ten abdampf-schalen uhrglasform mit ausschnitt	8.42
Two abdampf-schalen uhrglasform .....	.60
One löffel von glase .....	.50
Four reagir kelche mit ausguss	3.15
Five reagir kelche ohne ausguss	2.14
Five reagir kelche mit ausguss	2.50
Five reagir kelche spitzglasform	2.50
Five strohkranz	1.60
One satz. dozen von glas	2.50
Two mörser von glas	3.25
Two emulsionsmörser	5.75
Two mixtur mörser	2.25
One pulver mörser	11.67
One pulver thon	2.75
One retorte von thon	2.50
Six sätzen schmelztiegel	2.40
Two porzellan tonne	12.00
Three abdampf-schalen von thon	9.25
One trichter von thon	3.90
One trichter von thon mit hahn	6.00
One gasentwicklung apparate nach Finkener	20.00
Two gasentwicklung apparate nach Kipp	66.00
Eleven glascylinder	8.25
Twelve glascylinder	77.20
Eleven halbweisse retorten	27.45
Three halbweisse randkolben	7.20
Twenty weisse rundkolben	17.70
Twenty-six rundkolben mit umgelegt, Raude	14.50
Twenty-two rundkolben schwerschmelzbar	6.70
One vorlagekolben	1.50
One kolben mit aufgeschliffenem helme	2.10
Three retorten mit tubus	4.40
Eleven retorten weiss mit tubus	47.20
Five weissen rundkolben	8.60

DISBURSEMENTS—Continued.

Sixty weissen kolben	M. 17.75
One hundred and three weissen kolben mit angelegten rande	35.45
Eleven siede kolben nach martins	6.90
Seventeen cylinder mit fuss, rand und stopfen	64.05
Five bücher aluminiumfolie	4.00
One quarter kg. asbest. langfaserig	1.50
One quarter kg. asbestpappe	.90
One half kg. asbestpapier	6.00
Ten bogen etiketten auf papier	1.50
Ten bogen etiketten in Päckchen	3.30
Seven hundred bogen filtrirpapier, Deutches	27.95
Three hundred bogen filtrirpapier, C. S. & S.	34.00
One thousand two hundred stücke filtrirpapier, chemisch rein	30.80
One thousand three hundred stücke filtrirpapier, nicht ausgewaschen	173.35
One thousand stücke filtrirpapier, nicht ausgewaschen	61.65
One hundred bogen kaffeefiltrirpapier	2.30
One giftbuch	6.00
One keg kautschuk	30.00
Five stücke kautschuk kappen	2.70
One wandtafel	2.25
Fifteen wandtafel von schroeder	30.00
Two verbundungs hahn	2.25
One subeutan von hartgunns	1.75
One subeutan vergoldet	3.00
One subeutan versilbert	3.50
One urometerbesteck	7.50
One wasserbad von kupfer	11.50
Two retorten von kupfer	28.50
One schmelztiegel von kupfer	2.75
One schmelztiegel von nickel	2.25
Two abdampfschale von nickel	3.55
Two schmelztiegelzangen von messing	5.50
Three schmelztiegelzangen von messing	6.00
One schmelztiegelzangen von neusslber	2.25
One schmelztiegelzangen von neusslber und platinfinger	17.50
Two schmelztiegelzangen von nickel	8.50
Half keg stanniol	2.25
Ten quetschhähne nach mohr ohne schraube	2.65
Two quetschhähne nach mohr mit schraube	.85
Four quetschhähne nach Scheibler	1.10
Two quetschhähne nach Hofmann	1.70
Two quetschhähne nach Bunsen	1.70
Two dreifuss von messing	2.90
One pincette von stahl	3.50
One pincette von messing	2.00
One pincette von nickel	.80
One satz korkbohrer von messing	6.00
One satz korkbohrer verzinnt	3.50
One satz korkbohrer von weissblech	2.50
One lothrohr von messing	6.00
One lothrohrspitze von platin	2.50
One reagirglashalter von messing	.75
Two reagirglashalter von polirtem holz	1.00
One kohlsäge	1.25
Five loeffel von eisen	2.00
Five loeffel von eisen	3.50
Three loeffel von horn	1.15
One loeffel von knochen	.40
Four abdampfschalen von eisen	8.35
Three abdampfschalen von glasusen	10.65
Ten zinkplatten	7.50
One gasbrenner nach bunsen	1.50
Five gasbrenner nach bunsen	9.25
One gasbrenner nach bunsen	2.75
One gasbrenner nach bunsen	5.00
One gasbrenner nach bunsen	3.35
One gasbrenner nach bunsen	3.50
One gasbrenner nach finkner	4.10
One gaskochapparat	9.00
One gaskochapparat	2.75
Five gasbrenner D	5.50
Two gasbrenner E	3.00

DISBURSEMENTS—Continued.

Two gasbrenner G	M. 3.00
One gasbrenner J	1.10
Three messingstativ auf Dreifuss	10.75
One messingstativ zum kühler	8.00
One kühlerstativ	6.00
One pillenmörser von eisen	6.75
One diamantmörser von stahl	9.50
One retortenhalter mit doppelmuffe	4.00
Two röhrenträger von messing	8.50
Fifteen sandbadschalen von eisen	18.00
Two schmelztiegel	2.95
Two stativ auf Dreifuss	4.10
One stativ auf eiserner platte	4.00
Two bunsen stativ von eisen	3.20
Five stativ nach bunsen	6.10
Ten stativ nach bunsen kleine	10.00
Five stativ nach bunsen mittlere	5.00
Five stativ nach bunsen grosse	5.00
Two klemmer, kleine	3.30
Two klemmer, mittlere	4.50
One klemmer, grosse	3.00
Two bürettenhalter	5.00
Five doppelmuffen	5.00
Two doppelmuffen, universal	4.50
One haken	1.85
Fifteen universalstativ von messing	35.05
Ten universalstativ muffen	6.00
Fourteen universalstativ von messing	23.70
Three universalstativ staebe	4.50
Twelve universalstativ muffen	12.00
One satz eiserner ringe	1.50
One bürettestative	9.00
One bürettestative nach allihn	7.75
One filtrirstativ von messing	4.00
One gasbrenner mit leuchtflamme	1.50
Two extractspatel .....	.80
One plasterspatel	1.50
One filtrirstativ auf Dreifuss	5.50
One filtrirstativ, grösser	8.60
One filtrirstativ für microchemische arbeiten	3.00
One satz alkoholometer	18.00
One araeometer	2.50
Two universal araeometer	7.50
One thermometer	5.00
One spektroskop	50.00
Two reagirglasbürsten aus borsten .....	.50
Two reagirglasbürsten aus hoar .....	.80
One druckflasche nach allihn	5.00
One gasentwickelungs apparate	25.00
Fifty glaswolles	6.25
One kg. glasperlen	4.50
Fifty kohlen zum löthrohrversuchen	3.00
Forty kohlen zum öthrohrversuckenkunststliche	3.00
Twenty sprengkohlen	1.00
Ten sprengkohlen starke .....	.80
Two spitzflaschen	5.20
One opodeldoktrichter	4.50
Four rohren mit kohlensäure	60.00
One rohren mit kohlensäure schweflegir	7.50
One luftpumpenteller auf eisernem fuss	37.50
One löthrohrbesteck nach plattner	255.00
One albuminimeter	3.00
Two filtrirconusse von platin	4.50
One hundred mikroskopische deckgläser	3.05
One wageflascheren	2.75
One apparat zur stickstoffsbestimmung	95.00
One doppelflaschen	20.00
One dose von glas	2.35
One uroskop nach zülzer	2.00
Seven paar uhrgläser	6.30
Ten allorigen	4.90
Two Clark's destillationsröhren	1.20
Ten scheiben cobaltglas	3.00

DISBURSEMENTS—Continued.

One deplacirungs apparat.....	M. 1.25	
Twenty kolben zur fraction destillation.....	9.00	
Ten kolben zur fraction destillation mit two röhren	5.55	
One extractions apparat.....	1.00	
One extractionsapparat nach Wagner.....	3.80	
One piknometer.....	1.75	
One piknometer nach Sprengel.....	1.25	
Three gasleitungsröhren.....	2.10	
One gasregulator.....	2.50	
One gaswaschflasche nach allihn.....	6.00	
One kaliapparat.....	2.50	
Forty stehkolben.....	6.10	
One kolben mit aufgeschliffem helme .....	.70	
One kühler von glas.....	1.75	
One rückflusskühler.....	5.00	
One schlangenkühler.....	10.50	
One normalbürette.....	7.50	
One messpipette.....	1.00	
One glaspinsel.....	.75	
Six sätzen reagercylinder.....	2.70	
Thirty stücke reagercylinder.....	4.50	
Ten einblaseröhre.....	3.00	
One satz trichter.....	.30	
Two tropfgläser ohne stopfen .....	.60	
One tropfgläser mit stopfen.....	.50	
One würfel von uranglas.....	2.25	
Two aetherschälchen.....	1.00	
One goswaschflasche, mikrochemische.....	1.50	
Two wagsflaschen niedrige form.....	2.00	
Two wagsflaschen hohe form.....	1.25	
One wagsflaschen mit zwei kappen .....	.80	
One rückflaskkühler.....	3.00	
Ten kolbehen mit langem halse.....	3.00	
Five destillirkolben.....	3.00	
Two tropfgläser von gelben glase.....	1.50	
Two tropfgläser nach limousin.....	4.00	
Two tropfgläser nach salleron.....	.60	
Six kegs glaströhren leichtschmelzbar.....	9.00	
Three and twenty-five one hundredths kgs. glaströhren schwerschmelzbar.....	6.50	
Three and sixty-nine hundreths kgs. glaströhren; cohnische	11.05	
One keg glastäbe.....	2.50	
Two and one tenth kegs glastäbe stark.....	4.20	
	M. 3,732.15	
Discount 5 per cent on M. 3,424.75.....	171.25	
	M. 3,560.90	
Twenty-five cases.....	170.00	
Three zinkeinsätze.....	23.00	
	M. 3,753.90	
Less 1½ per cent.....	56.30	
	M. 3,697.60	
		\$893 11
Freight to Hamburg on thirty-five cases—J. R. McDonald & Co.....	M. 71.65	
Receiving, cartage, and shipping—J. R. McDonald & Co.....	76.25	
Consul's certificate—J. R. McDonald & Co.....	10.70	
Commission, 5 per cent.....	287.30	
	M. 445.90	
One quarter ounce metallic potassium—Justinian Caire.....	107 72	
Twelve pounds muriatic acid—Justinian Caire.....	1 25	
Thirty 15-inch bolts—Justinian Caire.....	3 60	
Thirty washers—Justinian Caire.....	4 75	
Fifty pounds sal ammoniac—Justinian Caire.....	1 50	
Two dozen 3-inch watch glasses—Justinian Caire.....	9 00	
Two filter stands—Justinian Caire.....	3 60	
One carboy muriatic acid—Golden City Chemical Works.....	3 00	
Expressage on one box—Patterson & Co.....	5 00	
Book on Laboratories—Mayer & Müller.....	25	
	2 20	

DISBURSEMENTS—Continued.

One copybook--H. S. Crocker & Co.	\$1 25
One carboy muriatic acid—Golden City Chemical Works	5 32
Glass and porcelain ware—bill of Franz Schilling, Gehlberg, Germany	260 65
Expressage—Patterson & Co.	3 70
Six thousand three hundred cubic feet gas—Oakland Gas Co.	15 75
Nine thousand one hundred cubic feet gas—Oakland Gas Co.	22 75
Three bottles muriatic acid—Golden City Chemical Works	4 06
Twelve porcelain crucibles—Justinian Caire	2 16
Three kettles—Justinian Caire	4 50
One thermometer—Justinian Caire	1 50
Forty-seven pounds hydrofluoric acid—Justinian Caire	11 75
One gallon hydrogen peroxide—Justinian Caire	2 50
One pound hydrogen c. p.—Justinian Caire	60
Freight on same—Justinian Caire	7 70
One lead jug—Justinian Caire	6 50
Bottles and punch	3 00

\$2,936 21

APPENDIX No. 6—College of Civil Engineering.

Three pounds manilla rope—Congdon & Co.	\$0 54
Expressage on one package—Wells, Fargo & Co.	55
Iron gearing for Observatory—Oakland Iron Works	35 00
Two cases coal oil—Joseph McClain	6 40
Two lanterns to order—A. S. Graff & Co.	18 00
Three wicks to order—A. S. Graff & Co.	1 00
Two hundred cards for thermometer—E. L. Woods	3 40
Repairs on sextant—A. Lietz & Co.	1 00
Two trips to San Francisco—Carl Rabe	50
Two trips to San Francisco—Carl Rabe	60
Rain gauge—San Francisco Bulletin Co.	3 00
Three French glass plates—F. M. Farwell	21 00
One French plate glass—F. M. Farwell	12 00
Expressage and cartage—F. M. Farwell	1 50
Repairing sextant—A. Lietz & Co.	3 25
Drawing—H. G. Parker	2 60
Wood work for gearing to turn dome of Observatory—Niehaus Bros. & Co.	7 50
Expressage—Wells, Fargo & Co.	85
Six brass shoes—Justinian Caire	3 60
One memograph—Samuel Hill & Co.	22 50
Sheet iron work on Observatory—B. E. Underwood	45 00
Two corner irons—Nelson & McLellan	75
Cutting and drilling casting—Nelson & McLellan	2 00
Expressage on two boxes—Patterson & Co.	60
Expenses to Oakland and return—Carl Rabe	20
Two candlesticks—Dalziel & Moller	60
Repairing lantern—Dalziel & Moller	50
Two wire card racks—Le Count Bros.	1 20
One long handle ax—A. Erlandsen	85
Two hatchets—A. Erlandsen	1 20
Two tapes repaired—A. Erlandsen	50
One burner and wick—A. S. Graff & Co.	75
Looking glass—S. & G. Gump	50
Drawing—Walter C. Allen	2 25
One tin chloride of lime—Lebenbaum Bros.	2 45
One set alphabet letters—Walter C. Allen	20 00
Expressage on one package—Patterson & Co.	25
Two boxes candles—Joseph McClain	7 00
One spirit level and repairs—A. Lietz & Co.	17 50
Two thousand 1-cent stamps—N. B. Byrne	20 00
Repairing governor for clock—Josephus Speak	11 50
Expert work on astronomical clock—Lewis McKisick	10 00
Six blank books—Dutton & Partridge	6 00
One roll catgut—Justinian Caire	1 00
Telegrams—Western Union Telegraph Co.	2 30
Repairing level—A. Lietz & Co.	2 50
Two brushes—Hawley Bros. Hardware Co.	70
Three dozen goose feathers—Hawley Bros. Hardware Co.	50
One brass handle—Hawley Bros. Hardware Co.	20
Four dozen brass screws—Hawley Bros. Hardware Co.	60

\$303 99

DISBURSEMENTS—Continued.

APPENDIX No. 7 A—*College of Mechanics.*

Expressage on one box—Patterson & Co.	\$0 25
Expressage on three packages—Patterson & Co.	50
Four thousand two hundred cubic feet of gas—Oakland Gas Co.	11 55
Expressage on one package—Patterson & Co.	25
Four thousand three hundred cubic feet of gas—Oakland Gas Co.	11 85
Two dozen chilled iron saws—Justinian Caire	2 00
One large knife for extension bit—Justinian Caire	80
One small knife for extension bit—Justinian Caire	40
One screw wrench, 8-inch block—Justinian Caire	55
One screw wrench, 10-inch block—Justinian Caire	65
One screw wrench, 12-inch block—Justinian Caire	75
One machinist's hammer—Justinian Caire	75
One riveting hammer, 44—Justinian Caire	35
One riveting hammer, 43—Justinian Caire	40
One 8-inch smooth plane—Justinian Caire	1 60
One dozen Murphy gravers—Justinian Caire	3 75
Three packages Escuto pins—Justinian Caire	1 50
Three pounds copper rivets and burrs—Justinian Caire	1 05
One 7-inch side cutting stubb pliers—Justinian Caire	1 65
One $\frac{3}{4}$ -inch soldering iron—Justinian Caire	1 20
Sixteen pounds solder—Justinian Caire	3 20
Screw eyes and hooks—Justinian Caire	1 20
One set tightening screw plates—Justinian Caire	8 20
Two match boxes—Justinian Caire	50
One hundred 2-cent stamps—N. B. Byrne	2 00
Ten 5-cent stamps—N. B. Byrne	50
Two hundred and twenty 1-cent stamps—N. B. Byrne	2 20
One hundred 1-cent wrappers—N. B. Byrne	1 10
One hundred 2-cent envelopes—N. B. Byrne	2 20
Three thousand seven hundred cubic feet gas—Oakland Gas Co.	9 25
Six thousand four hundred cubic feet gas—Oakland Gas Co.	12 75
Two 1-inch hook hangers—Clot & Meese	4 00
Two 1-inch collars—Clot & Meese	80
One thousand cards cut to order—J. J. Evans	1 75
Seven paper pads—J. J. Evans	1 25
Three dozen pencils—J. J. Evans	75
Forty-seven and one half pounds brass castings—F. Baud	14 25
Emery cloth and paper—Dunham, Carrigan & Hayden Co.	4 25
Three fourths doz. flat smooth files—Dunham, Carrigan & Hayden Co.	\$4 83
Four dozen bast. and cut files—Dunham, Carrigan & Hayden Co.	15 93
One half dozen smooth files—Dunham, Carrigan & Hayden Co.	1 86
One half dozen bast. files—Dunham, Carrigan & Hayden Co.	1 60
Two dozen taper saw files—Dunham, Carrigan & Hayden Co.	4 10
One dozen slim tapers—Dunham, Carrigan & Hayden Co.	1 90
One fourth dozen slim tapers—Dunham, Carrigan & Hayden Co.	33
One dozen rd., second cut—Dunham, Carrigan & Hayden Co.	3 03
	\$33 58
Less 40 per cent	13 43
	\$20 15
Less	1 22
	18 93
One fourth doz. Stubb's square files—Dunham, Carrigan & Hayden Co.	\$0 49
One half doz. Stubb's six-inch files—Dunham, Carrigan & Hayden Co.	1 87
One half dozen Stubb's flat files—Dunham, Carrigan & Hayden Co.	1 88
	\$4 24
Less 10 per cent	42
	3 82
One dozen mill files—Dunham, Carrigan & Hayden Co.	1 80
Three thousand eight hundred cubic feet gas—Oakland Gas Co.	9 50
Five thousand cubic feet gas—Oakland Gas Co.	12 50
Expressage on one bale waste—Patterson & Co.	75
Seven thousand six hundred cubic feet gas—Oakland Gas Co.	19 00
Expressage on two cases oil—Patterson & Co.	75
Expressage on two bars steel—Patterson & Co.	35
Expressage on one sack castings—Patterson & Co.	50
Expressage on three sacks castings—Patterson & Co.	2 50
Seven thousand four hundred cubic feet gas—Oakland Gas Co.	18 50
Five thousand two hundred feet gas—Oakland Gas Co.	13 00
	\$213 85

DISBURSEMENTS—Continued.

APPENDIX No. 7 B—College of Mechanics—State Appropriation.

One Hammond typewriter—Jones & Givens	\$100 00
One extra type wheel—Jones & Givens	5 00
One extra pair spools and ribbon—Jones & Givens	2 00
One ream legal paper—Jones & Givens	1 00
One ream letter paper—Jones & Givens	3 45
Two dozen carbon sheets—Jones & Givens	1 05
Ten pounds No. 16 brass wire—Justinian Caire	\$2 25
Ten pounds No. 14 brass wire—Justinian Caire	2 25
Fifteen pounds No. 12 brass wire—Justinian Caire	3 38
Fifteen pounds No. 10 brass wire—Justinian Caire	3 38
Fifteen pounds No. 8 brass wire—Justinian Caire	3 38
Twenty-five pounds cotton waste—Justinian Caire	3 25
Soapstone packing—Justinian Caire	2 50
One bar tool steel—Justinian Caire	2 50
One plow plane—Justinian Caire	7 25
One washer cutter—Justinian Caire	1 25
	\$31 39
Less	1 27

30 12

Forty-four pounds rubber packing—Gutta Percha and Rubber Manufacturing Co.	10 12
Five gallons Valvolite cylinder oil—American Oil Co.	5 50
Five gallons Champion cylinder oil—American Oil Co.	3 75
Five gallons Spindle oil—American Oil Co.	1 50
Five gallons Cardinal engine oil—American Oil Co.	3 25
Manual machine construction—Industrial Publishing Co.	5 00
Sixty-six machine drawings—Industrial Publishing Co.	10 00
Repairing valves of gas engine—Williams & Orton	15 00
Seven pieces castings—Judson Manufacturing Co.	5 80
Three gas engine rings—H. P. Gregory & Co.	4 50
Sixty feet 1-inch walnut—White Brothers	9 00
Six bundles catgut—Justinian Caire	3 00
Four gross screws—Justinian Caire	80
Twelve pulleys—Justinian Caire	1 50
One bottle varnish—Justinian Caire	75

\$222 09

APPENDIX No. 8 A—College of Mines.

Expressage on one box glass—Patterson & Co.	\$0 25
Expressage on three cases machinery—Patterson & Co.	2 00
Five tons English coke—T. H. Henderson, Agt.	100 00
One thousand one hundred cubic feet gas—Oakland Gas Co.	3 05
Two hundred cubic feet gas—Oakland Gas Co.	55
One hundred and five gallons coal oil—Osborn & Alexander	12 60
Expressage on one package castings—Patterson & Co.	25
Expressage on one case machinery—Patterson & Co.	1 00
Freight on one case machinery—Atlantic and Pacific Railroad	12 09
One thousand one hundred cubic feet gas—Oakland Gas Co.	3 05
Rubber tubing—Justinian Caire	4 50
Riders—Justinian Caire	1 00
One pulley—Clot & Meese	4 50
Expressage on one tank oil—Patterson & Co.	3 50
Three thousand nine hundred cubic feet gas—Oakland Gas Co.	10 75
One thousand three hundred cubic feet gas—Oakland Gas Co.	3 60
Three thousand one hundred cubic feet gas—Oakland Gas Co.	7 75
Four thousand four hundred cubic feet gas—Oakland Gas Co.	8 75
Twelve feet 1-inch pipe—John J. Menges	70
Twenty-six pieces plain glass—John J. Menges	1 00
One nipple to order—Dalziel & Moller	20
One copying ribbon for typewriter—Jones & Givens	1 50
One shield—Jones & Givens	10
Three impression strips—Jones & Givens	25
Repairs to dynamo—Keith Electric Co.	1 50
One gaspipe die—C. F. Marwedel	1 50
One foot brass tube—C. F. Marwedel	40
Welding end of tube—Hinkley, Spiers & Hayes	75
One dynamo to San Francisco and return—Patterson & Co.	1 00
Three thousand four hundred cubic feet gas—Oakland Gas Co.	8 50
Seven thousand five hundred cubic feet gas—Oakland Gas Co.	18 75

DISBURSEMENTS—Continued.

Eight thousand six hundred cubic feet gas—Oakland Gas Co.	\$21 50
Two water gauge glasses—Osborn & Alexander	50
Five assorted files—Savage Bros.	50
Expressage on castings, etc.—Patterson & Co.	3 00
Expressage on coal—Wells, Fargo & Co.	35
Fifty pounds dairy salt—Joseph McClain	70
Two furnace cover clamps—W. McIntosh	2 00
Expressage—Patterson & Co.	5 35
One thousand nine hundred cubic feet gas—Oakland Gas Co.	4 75
Two thousand four hundred cubic feet gas—Oakland Gas Co.	6 00
Three papers screws—Savage Bros.	1 05
Fifty-two feet redwood—Henry W. Taylor	2 05
One half gross screws—Savage Bros.	50
One half dozen pencils—Savage Bros.	25
One half dozen bolts—Savage Bros.	36

\$264 20

APPENDIX No. 8 B—College of Mines—State Appropriation.

One tool grinder complete—Stearns Manufacturing Co.	\$50 00
Four 9-inch by 1-inch emery wheels—Stearns Manufacturing Co.	20 00
Six sets electrode connections—J. Henderson	16 20
One thousand feet redwood—Henry W. Taylor	32 00
Two hundred feet pine—Henry W. Taylor	8 00
Mill work	2 00
One smoke hood—Geo. H. Tay & Co.	8 50
One sheet-iron frame—Geo. H. Tay & Co.	28 00
Altering desk and refitting connections—A. H. Broad	25 00
Six registers and thimbles—W. W. Montague & Co.	2 50
Castings and iron work for crucible frame—Hinckley, Spiers & Hayes	115 00
Gas burner—Justinian Caire	5 00
Crucible covers—Justinian Caire	3 00
One 4-way hopper—Geo. H. Tay & Co.	40 00
Three gallons rubber paint—Whittier, Fuller & Co.	5 00
One gallon of turpentine—Whittier, Fuller & Co.	
One gallon boiled oil—Whittier, Fuller & Co.	
Bolts and rods—Hinckley, Spiers & Hayes	8 00
Mason work on furnace—H. L. Whitney	49 10

\$417 30

APPENDIX No. 9—Department of Lick Observatory.

Rental for one year of telephone—Sunset Telephone Company	\$35 00
One Remington typewriter—G. G. Wickson & Co.	\$100 00
Less exchange old typewriter—G. G. Wickson & Co.	40 00
Ten cases Starlight oil—Goldberg, Bowen & Co.	60 00
Freight on same—Goldberg, Bowen & Co.	26 00
One 7-foot saw—Farmers Union	1 60
Thirteen-pound steel sledge—Farmers Union	7 00
Eight-pound steel wedges—Farmers Union	1 30
One sledge handle—Farmers Union	96
One hand saw—Farmers Union	25
One rip saw—Farmers Union	1 75
Two screwdrivers—Farmers Union	2 00
Fifteen cans chloride lime—Farmers Union	45
One half dozen brooms—Farmers Union	1 50
One half dozen mops—Farmers Union	1 75
Ten dozen castile soap—Farmers Union	2 13
One half dozen lantern globes—Farmers Union	1 20
One half dozen lamp shades—Farmers Union	75
One tack hammer—Farmers Union	2 40
One carpenter's hammer—Farmers Union	50
Three Mann's copy book—Payot, Upham & Co.	65
One half dozen ink wells—Payot, Upham & Co.	4 05
One third dozen quarts violet ink—Payot, Upham & Co.	45
One sixth dozen quarts Arabin ink—Payot, Upham & Co.	1 67
One and one half reams legal—Payot, Upham & Co.	1 67
One and one half reams letter—Payot, Upham & Co.	2 81
One and one half reams note—Payot, Upham & Co.	2 25
Fifteen cases Starlight oil—Goldberg, Bowen & Co.	1 12
Freight on same—Goldberg, Bowen & Co.	36 00
Thirty gallons machine oil—Whittier, Fuller & Co.	2 40
	16 50

DISBURSEMENTS—Continued.

Ten gallons pure sperm oil—Whittier, Fuller & Co.	\$11 00
Cartage on same—Whittier, Fuller & Co.	50
Flax packing—Union Iron Works.	15 00
Waste packing—Union Iron Works.	7 00
One observing lantern—H. Allen Mathews.	1 25
One half dozen bottles watch oil—H. Allen Mathews.	1 50
Thirteen tons hay—J. D. D. Bernal.	195 00
Three thousand seven hundred and fifty pounds barley—Farmers Union.	30 00
Four hundred and eighty-five pounds bran—Farmers Union.	4 00
Postage stamps—S. H. Wagener.	50 00
Ten coils barbed wire—H. Allen Mathews.	10 00
Thirteen sheets galvanized iron—H. Allen Mathews.	15 00
Twenty dozen 8x10 seed plates—H. Allen Mathews.	48 00
One dozen 10x12 seed plates—H. Allen Mathews.	3 80
One dozen 11x14 seed plates—H. Allen Mathews.	5 00
Ten dozen 4x5 seed plates—H. Allen Mathews.	6 50
Ten dozen 3 $\frac{1}{2}$ x4 $\frac{1}{2}$ Eastman plates—H. Allen Mathews.	6 50
One ounce nitric ammonia—H. Allen Mathews.	20
One ounce gum sandarac—H. Allen Mathews.	50
One pound chloroform—H. Allen Mathews.	65
One pound mittiate uranium—H. Allen Mathews.	85
Five ounces oil lavender—H. Allen Mathews.	1 25
Nine bottles chloride gold—H. Allen Mathews.	5 00
One quart alcohol—H. Allen Mathews.	75
One ounce chloride ammonia—H. Allen Mathews.	20
One ounce sodium—H. Allen Mathews.	60
Gratings on silvered glass—E. S. Holden.	15 00
One span sorrel mules—Ira Hageman.	300 00
Twine and tacks—Farmers Union.	95
One dozen papers tacks—H. Allen Mathews.	40
Five gallons alcohol—J. Archambeault.	14 25
One barrel lime—J. Archambeault.	2 00
Two pounds green paint—J. Archambeault.	60
Ten pounds chloride of lime—J. Archambeault.	1 00
Fifty feet rain conductor—J. Archambeault.	5 00
Eleven and a quarter feet belting—J. Archambeault.	2 30
Three hose couplings and nipples—J. Archambeault.	4 20
One and a half gross matches—J. Archambeault.	2 50
Twenty packages toilet paper—J. Archambeault.	2 50
Sixty-six feet white cedar—Santa Clara Valley Lumber Company.	5 28
One hundred and eighty paper boxes—A. Fleishhacker & Co.	11 25
One hundred sheets blotting paper—B. Westermann & Co.	8 00
Cutting and hauling wood—Hugh Kennedy.	9 50
Cutting twenty cords wood—H. C. Brown.	40 00
Cutting and hauling wood—H. C. Brown.	63 00
Cutting and hauling wood—Hugh Kennedy.	24 00
Cutting and hauling wood—H. C. Brown.	12 00
Cutting thirteen and one half cords wood—H. C. Brown.	27 00
Cutting and hauling wood—H. C. Brown.	58 50
Cutting and hauling wood—J. R. Kincaid.	207 00
Cutting and hauling wood—H. C. Brown.	30 00
Cutting and hauling wood—H. C. Brown.	45 00
Four bullseye lanterns—H. A. Mathews.	4 75
Labor setting up tanks—R. Fraser.	10 00
Three hundred and thirty-three split pickets—Santa Clara Valley Lumber Co.	9 99
Repairing eye end of 12-inch telescope; supplies and labor—Union Iron W'ks.	68 65
Ten cords 4-foot wood—E. S. Holden.	60 00
Ruling blanks—Hicks-Judd Co.	50
One electro blank—Bancroft Co.	75
Five hundred postal cards—J. W. Flynn.	5 00
One signal service—Yale University.	3 50
One letter balance—Geo. W. Welch.	2 00
One half dozen chimneys—Richard Briggs.	1 50
Two retort stands—H. A. Mathews.	2 00
One set cork borers—H. A. Mathews.	2 75
Two pounds vulcanized rubber—H. A. Mathews.	3 50
One printing frame—H. A. Mathews.	8 00
One ground glass—H. A. Mathews.	2 50
One newspaper file—H. A. Mathews.	60
Sixty paper boxes—A. Fleishhacker & Co.	3 80
Two Rochester founts—Thos. Day & Co.	4 25
Bushing three gear wheels—Wight & Branham.	8 50
Mounting reversion prism—J. A. Brashear.	12 00

DISBURSEMENTS—Continued.

Platinum wire—Justinian Caire	\$1 00
Labor as machinist, etc.—A. J. Burnham	9 30
Two pounds Canada balsam—Justinian Caire	1 30
Making valve stems—Wight & Branham	2 70
Services as carpenter—R. P. Fraser	77 00
Telegrams in May—Western Union Telegraph Co.	1 07
Telegrams in June—Western Union Telegraph Co.	5 59
Telegrams in July—Western Union Telegraph Co.	4 28
Observatory announcement for 1888—Harvard College	13 43
Freight on oil—J. Archambeault	50
Hauling during May—J. R. Kincaid	20 91
Hauling during July—H. C. Brown	14 53
Hauling during July—H. C. Brown	14 46
Freight charges—Chas. B. Hill	1 25
Hauling in August—H. C. Brown	68
Express charges, April and May—Mt. Hamilton Stage Co.	4 70
Express charges, May and June—Mt. Hamilton Stage Co.	9 15
Express charges, June and July—Mt. Hamilton Stage Co.	11 16
Express charges, July and August—Mt. Hamilton Stage Co.	10 45
Express charges—Union Iron Works	25
Placing iron posts at five corners of reservation—Hugh Kennedy	9 00
Fixing place for tanks—Hugh Kennedy	11 00
Repairing water engine—Union Iron Works	54 50
Eight new shoes—T. A. Carroll	4 00
Fixing place for tanks—Hugh Kennedy	21 00
Services as laborer—Hugh Kennedy	14 00
Postage stamps—S. H. Wagener	50 00
Six dozen plates, 8x10—M. A. Seed Dry Plate Co.	12 96
Twelve new shoes—T. A. Carroll	6 80
Nipples, fittings, and ribs—Farmers Union	31 73
Five 2-inch gate valves—Farmers Union	17 50
One pair T. S. shears—Farmers Union	1 50
One pair Boston collars—Fred. M. Stern	7 00
One pair halters and stays—Fred. M. Stern	4 00
Two pair sweat pads—Fred. M. Stern	1 50
One whip—Hatman & Normandin	1 25
Two tin tubes—F. Klein	6 80
One door—Santa Clara Valley Mill and Lumber Co.	2 25
Single and doubletrees—J. Archambeault	2 75
Freight charges advanced—J. Archambeault	55
Lathe work on cylinders—Wight & Branham	1 00
Four and one sixth dozen blank books—H. A. Mathews	\$12 50
One rubber stamp	2 00
	\$14 50
Less 10 per cent	1 45
Eighty-four and one half pounds flax packing—Union Iron Works	13 05
Repairing micrometer—A. Lietz & Co.	42 25
Two dozen lamp chimneys and freight—C. W. J. Martens	22 80
Expressage prepaid—B. Westermann & Co.	5 50
Expressage during August and September—Mt. Hamilton Stage Co.	5 60
Freight on packing—Southern Pacific Company	15 70
Transporting eclipse reports—Wells, Fargo & Co.	25
Expressage during September—Mt. Hamilton Stage Co.	24 20
Three relays N. P.—Paul Seilers Electrical Works	20 60
Three cells Dr. Gassner battery—Paul Seilers Electrical Works	13 50
Ten pounds chromic acid—Paul Seilers Electrical Works	4 50
One dozen ferrotype plates—H. A. Mathews	3 50
Three ounces hydroquinine—H. A. Mathews	1 80
One ounce hydrate sodium—H. A. Mathews	2 55
One dozen hooks and staples—H. A. Mathews	25
One thousand eight hundred McGill fasteners—H. A. Mathews	1 00
One railroad lantern—H. A. Mathews	6 03
One brace and saw—Farmers Union	1 75
Twelve-foot stepladder—Farmers Union	1 95
One gross screws—Farmers Union	4 80
One pair butts—Farmers Union	1 60
Lock and glue—Farmers Union	20
One half dozen padlocks—Farmers Union	1 25
One ebony diamond—Farmers Union	1 75
One half bolt twine—Farmers Union	7 25
Sandpaper and brush—Farmers Union	50
	50

DISBURSEMENTS—Continued.

Five gallons shellac—Farmers Union	\$22 50
Special work on spectroscope—John A. Brashear	79 00
One short focus objective—John A. Brashear	12 00
One long focus objective—John A. Brashear	12 00
One lens for photo work—John A. Brashear	7 00
One special eyepiece—John A. Brashear	20 00
Expressage—John A. Brashear	3 15
Control for driving clock—Union Iron Works	37 96
Drawing of bronze tablet—F. Seregni	15 00
Expressage—Patterson & Co.	65
Postage stamps—S. H. Wagener	10 00
Postage stamps—S. H. Wagener	10 00
Postage stamps—S. H. Wagener	15 00
Fifteen cases Starlight oil—Goldberg, Bowen & Co.	37 50
Freight on same—Goldberg, Bowen & Co.	2 40
Refiguring surfaces of spectroscope—John A. Brashear	20 00
Payment of all charges for expressage up to January 1, 1890—Mount Hamilton Stage Co.	400 00
One hundred and fifty porcelain insulators—Paul Seilers Electrical Works	2 65
One hundred and fifty 2-inch screws—Paul Seilers Electrical Works	1 50
Boxing same—Paul Seilers Electrical Works	10
Eight new shoes—T. A. Carroll	4 00
One hundred and fifty insulators and screws—Paul Seilers Electrical Works	4 25
Refilling level and caps—A. Lietz & Co.	3 50
One door—Santa Clara Valley Mill and Lumber Co.	5 00
One ream P. O. paper—H. A. Mathews	1 00
Two and one half pounds cotton rope—H. A. Mathews	1 25
One ream manilla paper—H. A. Mathews	3 50
One box rubber bands—H. A. Mathews	65
Five dozen 8x10 dry plates—E. & H. T. Anthony & Co.	15 66
One H. W. G. lantern—E. & H. T. Anthony & Co.	
Five boxes F. P. paper—E. & H. T. Anthony & Co.	
One folio diary—Payot, Upham & Co.	2 50
Five dozen 8x10 carbott plates—Samuel C. Partridge	15 15
Twenty ounces pyrogallie acid—H. A. Mathews	9 00
Two dozen nick. butts—H. A. Mathews	10 40
One Billings wrench—H. A. Mathews	1 00
One thousand brass head tacks—H. A. Mathews	1 50
One half dozen balls hemp cord—H. A. Mathews	1 50
One dozen stove bolts—H. A. Mathews	25
Ten dozen Acme note—H. A. Mathews	10 50
Two dozen oil boards—H. A. Mathews	1 50
Carpenter work—S. Howarth	55 00
Expenses to Lick Observatory and return—J. C. Rowell	5 50
Eleven indexes—Payot, Upham & Co.	3 30
One dozen transfer cases—Payot, Upham & Co.	4 20
Five yards curtaining—Rucker Bros.	1 25
One hank cord—Farmers Union	1 00
Three pounds twine—Farmers Union	90
Ten pounds putty—Farmers Union	40
Vaseline—Farmers Union	50
Two and one half pounds rope—Farmers Union	45
Tacks and matches—Farmers Union	1 25
Two check valves—Farmers Union	3 50
One strip leather—Farmers Union	30
Six bolts twine—Farmers Union	60
Two sacks charcoal—Farmers Union	1 20
Six spring hinges—Farmers Union	1 00
Three pounds black paint—Farmers Union	75
Twenty pounds nails—Farmers Union	1 00
Fifty pounds buckwheat—Farmers Union	1 38
One currycomb and brush—Farmers Union	1 10
Neatsfoot oil—Farmers Union	35
One mill file—Farmers Union	20
Copper rivets—Farmers Union	75
Iron rivets—Farmers Union	25
Three files—Farmers Union	1 60
Fifteen pounds 30d nails—Farmers Union	60
Casting ring for cell of finder—Wight & Branham	2 50
Twelve dozen 3 $\frac{1}{2}$ x4 $\frac{1}{2}$ plates—M. A. Seed Dry Plate Co.	4 86
Repairing wagon—Hatman & Normandin	3 00
Eight new shoes—T. A. Carroll	4 00
Postage stamps—S. H. Wagener	25 00

DISBURSEMENTS—Continued.

Hoop iron—Farmers Union	\$0 25
Six pounds ball twine—Farmers Union	1 50
Four barrels of lime—Farmers Union	8 00
Two barrels of cement—Farmers Union	10 50
Parlor matches—Farmers Union	1 00
Hoop iron—Farmers Union	1 25
Two bolts twine—Farmers Union	40
Three files—Farmers Union	1 20
Strapping books—Farmers Union	1 75
Cartage on books—Farmers Union	50
Two barrels of cement—Farmers Union	10 30
Five hundred feet of lumber—Farmers Union	12 60
Hauling five thousand and fifty feet lumber—J. D. D. Bernal	20 60
Hauling four thousand and ten pounds of freight—J. D. D. Bernal	14 04
Board for man repairing telegraph line—E. Guth	5 50
Board of Joseph Roban, repairing telegraph line	1 00
Board of Joseph Roban, repairing telegraph line	3 00
Board of W. W. Bent, repairing telegraph line	5 50
Three cells Dr. Gasner battery—Paul Sellers Electrical Works	4 60
Hauling one thousand six hundred and sixty pounds eclipse report—J. R. Kincaid	5 81
Expressage during October—Mount Hamilton Stage Co.	10 60
Freight on reports to Washington—Farmers Union	17 64
Hauling five hundred feet lumber—H. C. Brown	10 00
Hauling one hundred pounds barbed wire—H. C. Brown	40
Hauling two barrels of cement—H. C. Brown	80
Hauling three thousand five hundred pounds freight—H. C. Brown	14 00
Hauling one thousand two hundred and fifty pounds freight—H. C. Brown	5 00
Repairing telephone line—H. C. Brown	4 75
Freight on seeds and paper—Farmers Union	50
Freight on goods to East—Farmers Union	3 70
Freight during November—Farmers Union	3 95
One hundred feet upholstery cord—H. A. Mathews	75
One developing pan—H. A. Mathews	16 00
Fifty pounds wire straps—H. A. Mathews	9 50
One 8x10 plate mirror—H. A. Mathews	75
One calendar memorandum—H. A. Mathews	50
One calendar memorandum—H. A. Mathews	50
One half dozen screw pulleys—H. A. Mathews	60
Hauling one thousand bricks—J. R. Kincaid	2 50
Finding section corners—J. R. Kincaid	2 50
Repairing wagon—J. M. Hatch	3 25
Swivel for windmill—H. E. Knox	2 50
Crank for windmill—H. E. Knox	10 00
Journal of Mathematics—B. Westermann & Co.	7 00
Astronomical Journal—B. Westermann & Co.	8 00
Astronomical Bulletin—B. Westermann & Co.	4 75
Observatory—B. Westermann & Co.	3 50
Nature—B. Westermann & Co.	6 00
Astronomical Journal—B. Westermann & Co.	5 50
Annals of Mathematics—B. Westermann & Co.	2 00
Sidereal Messenger—B. Westermann & Co.	3 00
Binding two hundred and fifty-six volumes—Hicks-Judd Co.	197 00
Seed barley—Farmers Union	4 40
Seed oats—Farmers Union	3 00
Seed rye—Farmers Union	2 90
One harrow—Farmers Union	12 00
Binding two hundred and nineteen volumes—Hicks-Judd Co.	208 75
Himmel und Erde—Mayer & Müller	3 88
Five dozen 8x10 plates—M. A. Seed Dry Plate Co.	\$12 00
Two dozen 5x7 plates—M. A. Seed Dry Plate Co.	2 20
Four dozen 4x5 plates—M. A. Seed Dry Plate Co.	2 60
	\$16 80
Less 10 per cent	1 68
One typewriter ribbon—Scott & Lee	15 12
One dozen carbon—Scott & Lee	1 00
Nails—Farmers Union	50
Screws and bolts—Farmers Union	2 50
Sponges—Farmers Union	1 00
Five gallons oil—Farmers Union	3 90
One gallon alcohol—Farmers Union	2 50

DISBURSEMENTS—Continued.

Matches—Farmers Union	\$2 00
One hundred pounds white lead—Farmers Union	6 50
Three cases Starlight oil—Goldberg, Bowen & Co.	7 05
Freight on same—Goldberg, Bowen & Co.	50
Ink for instruments—Draper Manufacturing Co.	2 90
Two ounces Abies mertensiana seed—Trumbull & Beebe	1 40
Four ounces Libocedrus decurrens seed—Trumbull & Beebe	1 60
Six ounces Pinus Coulteri seed—Trumbull & Beebe	1 80
Thirty-two ounces seeds—Thos. A. Cox & Co.	16 20
One safety valve—Farmers Union	5 00
Ten gallons raw oil—Farmers Union	7 50
Two hundred pounds pure metallic—Farmers Union	6 00
Seven brushes—Farmers Union	3 00
Six Mann's copybooks—Payot, Upham & Co.	6 75
One 5-inch periscopic eyepiece—Gundlach Optical Co.	100 00
Two hanks upholstery cord—H. A. Mathews	75
Expressage and brokerage on goods from New York—Wells, Fargo & Co.	14 40
One self-registering thermometer—Richard Frères, Paris	26 46
New crank for windmill—H. E. Knox	10 00
Binding fifteen volumes—Hicks-Judd Co.	14 05
Five pounds sulph. soda—Sam. C. Partridge	3 00
Five pounds carb. soda—Sam. C. Partridge	2 75
Two 6-ounce graduates—Sam. C. Partridge	1 30
Two 2-ounce graduates—Sam. C. Partridge	70
Two 1-ounce graduates—Sam. C. Partridge	60
Eight ounces pyro—Sam. C. Partridge	3 00
Three dozen Eastman plates—Sam. C. Partridge	2 10
Seven dozen Carbutt plates—Sam. C. Partridge	4 65
Six bottles red ink—Farmers Union	1 10
One hundred 5-cent stamps—S. H. Wagener	5 00
Five hundred 2-cent stamps—S. H. Wagener	10 00
Five hundred 1-cent stamps—S. H. Wagener	5 00
One 10-inch file—Farmers Union	20
Six mops—Farmers Union	1 20
Assorted files—Farmers Union	1 75
Putty—Farmers Union	1 00
Sandpaper—Farmers Union	1 00
Glue—Farmers Union	1 50
Assorted pins—H. A. Mathews	1 00
Assorted rubber bands—H. A. Mathews	4 00
Five twelfths dozen paste—H. A. Mathews	1 25
Straightening three valve stems—Wright & Branham	80
Tinning plate holders—W. W. Bent	5 50
Labor and supplies repairing line—Sunset Telephone and Telegraph Co.	11 00
Expenses of W. G. Klee at Mount Hamilton	18 40
Three hundred and sixty forest trees—California Nursery Co.	34 00
Six cases Starlight oil—Goldberg, Bowen & Co.	14 75
Toilet paper—Farmers Union	2 00
Staples—Farmers Union	50
One thousand one hundred and seventy-five feet redwood boards—Santa Clara Valley Mill and Lumber Co.	35 50
One pound pure mercury—Justinian Caire	1 00
Work on small spectroscope—J. A. Brashear	100 00
Twenty copies notices—C. A. Murdock & Co.	2 00

\$4,580 77

APPENDIX No. 10—Department of Military Science.

Expressage on four cases firearms—Patterson & Co.	\$1 00
Expressage and advances on four cases firearms—Patterson & Co.	3 10
Expressage on three cases rifles—Patterson & Co.	2 20
Expressage on ten boxes ammunition—Patterson & Co.	2 50
"Operation of War"—E. G. Allen	6 45
"Modern Artillery"—E. G. Allen	
"Soldiers' Pocketbook"—E. G. Allen	
"Modern Tactics"—E. G. Allen	8 66
"Studies in Troopheading"—E. G. Allen	
"Decisive Battles"—E. G. Allen	
American Kriegspiel—Gustave E. Stechert	2 12
Rods, plates, and side pieces for targets—Oakland Iron Works	20 00
Shortening rods—Oakland Iron Works	3 00
Pulleys and lag screws—Justinian Caire	1 40
Wire sash cord—Justinian Caire	1 60
Expressage on iron for targets—Patterson & Co.	75

DISBURSEMENTS—Continued.

Expressage on two coils rope—Patterson & Co.	\$0 50
Two and three-quarter manilla rope—Dunham, Carrigan & Hayden Co.	8 33
One hundred 2-cent stamps—N. B. Byrne	2 00
One redwood bookcase—California Furniture Manufacturing Co.	26 00
One letter press and sundries—Samuel Carson & Co.	16 00
Four dozen Faber's pencils—Samuel Carson & Co.	1 85
One half M. envelopes—Samuel Carson & Co.	2 10
Printing on envelopes—Samuel Carson & Co.	2 00
Four hundred and eighty letter heads—Samuel Carson & Co.	4 50
Six Wheeler's "Art of War"—Samuel Carson & Co.	10 50
Six Wheeler's "Field Fortifications"—Samuel Carson & Co.	10 50
One sprinkler—Stewart & Trowbridge	70
Two boxes pomade—Stewart & Trowbridge	40
Stencil paint—Stewart & Trowbridge	50
Expressage on letter press—Patterson & Co.	50
Expressage on bookcase—Patterson & Co.	1 50
Two silk markers—Clarence A. Hart & Co.	14 50
Music for inspection drill—Lieut. W. H. Coffin	100 00
Expressage—Wells, Fargo & Co.	4 15
	\$259 31

APPENDIX No. 11—*Department of Mineralogy.*

Two hundred and seventy slices of rock specimens—B. Stürtz, Bonn	\$92 06
Freight and Consul charges—J. R. McDonald & Co.	9 67
One stone-cutting machine—Max Wolz, Bonn	116 30
Freight and Consul charges—J. R. McDonald & Co.	17 15
One and one-half carat diamond—F. Moorecroft	7 50
One center-feed for stone-cutting machine—Max Wolz	18 96
Freight and Consul charges—J. R. McDonald & Co.	6 57
Expressage on one box—Patterson & Co.	75
One half dozen blank books—A. B. Merrill	1 50
Repairs to stone lathe—A. Erlander	40
Expressage on one case—Boyd's Express	50
Expressage on one box—Patterson & Co.	50
Expressage—Wells, Fargo & Co.	1 30

\$273 16APPENDIX No. 12—*Department of Physics.*

Ten plates of photographic map of solar spectrum—N. Murray	\$18 28
One Galton's whistle—James W. Queen & Co.	6 50
Three and one half pounds ether—Justinian Caire	2 80
Two ounces platinum wire—Justinian Caire	24 00
Ten boxes labels—Justinian Caire	1 00
Sixteen and three eighths pounds zinc—Justinian Caire	1 64
One dozen test tubes—Justinian Caire	1 05
Six 16-ounce flasks—Justinian Caire	1 80
Six 8-ounce flasks—Justinian Caire	1 20
Six 4-ounce flasks—Justinian Caire	75
Twelve 2-ounce flasks—Justinian Caire	1 20
Two tweezers—Justinian Caire	40
One can vaseline—Justinian Caire	50
Six candlesticks—Justinian Caire	1 00
Wrapping paper—Justinian Caire	95
One dozen chimneys—Justinian Caire	75
Candles—Justinian Caire	
Five pounds nitrate ammonia—Justinian Caire	1 50
One 12-inch vernier caliper—Darling, Brown & Sharpe	22 88
One No. 2 Edison mimeograph—Samuel Hill & Co.	25 00
Expressage on three packages—Patterson & Co.	50
Forty-eight feet corrugated tube—W. F. Bowers & Co.	3 60
Four feet tube—W. F. Bowers & Co.	2 50
Twenty-five yards silesia—F. Slate	2 50
Seven pounds candles—F. Slate	1 40
Ice and salt—F. Slate	75
Expressage on one package—Patterson & Co.	25
Expressage on one package hose—Patterson & Co.	35
Expressage on one package from Philadelphia—Wells, Fargo & Co.	65
Expense of visiting eastern Physical Laboratories—F. Slate	250 00
Expressage—Patterson & Co.	17 10
Freight and expressage on three cases inst.—Patterson & Co.	24 00

\$416 80

DISBURSEMENTS—Continued.

APPENDIX No. 13—*Department of Physical Culture.*

Twenty hours' clerical services—Wm. Fairbank	\$6 00
Freight on seven packages gymnasium apparatus—Southern Pacific Co.	51 45
Expressage on rope and rings—Patterson & Co.	50
Expressage on rope and rings—Patterson & Co.	50
Expressage on one machine—Patterson & Co.	75
Forty-nine and one third yards ingrain carpet—McGovern & Cahill	41 93
One Harvard chair—Wm. S. Duncombe & Co.	70 00
One stretcher—Wm. S. Duncombe & Co.	3 00
One No. 1 biceptor—H. N. Cook	11 00
One No. 2 biceptor—H. N. Cook	13 00
Two waste baskets—Davis Brothers	1 00
Twenty hours' clerical service—W. A. Fairbanks	6 00
Two record books—H. S. Crocker & Co.	2 70
One daybook—H. S. Crocker & Co.	60
Expressage on one box—Wells, Fargo & Co.	70
Two tape lines—Justinian Caire	3 50
Fifty pounds resin—Chas. J. Hendry	2 00
Four spring shades—W. & J. Sloane & Co.	4 90
Four stop pulleys—W. & J. Sloane & Co.	24
One half dozen hemp sash cords—Huntington-Hopkins Co.	3 50
Expressage on seven packages apparatus—Patterson & Co.	2 50
Expressage on two baskets—Patterson & Co.	25
Expressage on two packages—Patterson & Co.	50
Expressage on one box resin—Patterson & Co.	25
One steel tape line—Justinian Caire	1 50
Expressage on two packages—Patterson & Co.	35
One vaulting horse—H. Geiss	45 00
Repairing old horse—H. Geiss	10 00
Four felt mats—H. Geiss	140 00
One copy press—Payot, Upham & Co.	9 38
One copy book—Payot, Upham & Co.	1 50
One quart combination ink—Payot Upham & Co.	75
Twelve sets chest weights—D. A. Sargent	144 00
One abdominal machine—D. A. Sargent	8 50
One lunger, plain belt—D. A. Sargent	5 00
One giant pulley—D. Sargent	10 00
One height measure and box—D. A. Sargent	12 00
One width measure—D. A. Sargent	4 00
One length measure—D. A. Sargent	4 00
Expressage—Wells, Fargo & Co.	75
Chart for club swinging—W. R. McDaniel	\$5 00
Book on club swinging—W. R. McDaniel	1 00
	\$6 00
Less	1 00
	5 00
Expressage on four mattresses and horse—Patterson & Co.	2 50
One case oil—Joseph McClain	2 50
One case oil—Joseph McClain	2 50
One oil heating stove—Wiester & Co.	12 00
One yellow glass light—Whittier, Fuller & Co.	90
Furnishing and placing one rolled steel bar—Crisman, Brown & Co.	220 00
One smooth plane—Dunham, Carrigan & Hayden Co.	2 00
One wrench—Dunham, Carrigan & Hayden Co.	1 25
One auger bit—Dunham, Carrigan & Hayden Co.	50
One hand vise—Dunham, Carrigan & Hayden Co.	1 00
One glue pot—Dunham, Carrigan & Hayden Co.	1 50
Five pounds glue—Dunham, Carrigan & Hayden Co.	1 00
Five pounds powdered emery—Dunham, Carrigan & Hayden Co.	2 00
Five pounds rotten stone—Dunham, Carrigan & Hayden Co.	50
Chloride of lime—Dunham, Carrigan & Hayden Co.	1 00
Expressage on one box—Patterson & Co.	50
Expressage on three cases weights—Patterson & Co.	75
Expressage on one letter press—Patterson & Co.	50
One case Astral oil—Joseph McClain	2 50

DISBURSEMENTS—Continued.

"Physical Education"—Narragansett Machine Co.....	\$1 80	
"How to Get Strong"—Narragansett Machine Co.....	1 00	
"Club Swinging"—Narragansett Machine Co.....	50	
"Code Book"—Narragansett Machine Co.....	60	
"Flat and Round Pyramids"—Narragansett Machine Co.....	80	
"Pyramid for Gymnasium"—Narragansett Machine Co.....	45	
	\$5 15	
Less	80	\$4 35
One 12-inch medium ball—Narragansett Machine Co.....	\$9 50	
One 16-pound shot bag—Narragansett Machine Co.....	8 00	
Four vaulting poles—Narragansett Machine Co.....	13 00	
One 28-foot rope—Narragansett Machine Co.....	15 00	
Four dozen maple wands—Narragansett Machine Co.....	7 00	
	\$52 50	
Less 20 per cent	10 50	
One 8-foot screen—Niehaus Bros. & Co.....		42 00
One surgeon's bag—A. B. Merrill		10 00
Expressage on two boxes—Patterson & Co.....		10 00
Expressage on one box from Boston—Wells, Fargo & Co.....		50
One spirometer—D. A. Sargent		3 00
Expressage on poles and bundles—Patterson & Co.....		10 00
Freight on three packages apparatus—Southern Pacific Co.....		1 00
One case Astral oil—Joseph McClain		5 04
Two steel tapes—Justinian Caire		2 50
Two striking bags—H. N. Cook		3 50
One pair striking gloves—H. N. Cook		15 00
Expressage on punch bags—Patterson & Co.....		2 00
"Anatomical Auxiliary"—Narragansett Machine Co.....		25
"Flat and Round Pyramids"—Narragansett Machine Co.....		2 00
One hatter's measure—David Wilcox & Co.....		80
Hot water heating apparatus—Harvey Heating Co.....		75 00
Books on the human anatomy—Samuel Carson & Co.....		995 00
Expressage—Wells, Fargo & Co.....		36 00
One trapeze and rope—Narragansett Machine Co.....		6 50
Books—D. Appleton & Co.....		6 00
Two 12-inch flat files—J. W. Savage		1 38
Thirteen sheets emery cloth—J. W. Savage		1 00
One dozen concentrated lye—Kelsey Bros.....		1 00
Two brass rods—J. C. Aitken		1 40
"Natural Method of Physical Training"—Samuel Carson & Co.....		80
"Elements of Natural Philosophy"—Samuel Carson & Co.....		1 50
One letter book—Payot, Upham & Co.....		1 40
Repairing mats in gymnasium—J. T. Baum		2 25
"O'Reilly's Athletics"—Samuel Carson & Co.....		5 00
"Ten Laws of Health"—Samuel Carson & Co.....		1 40
Repairing three striking bags—H. B. Cook		1 50
Four thermometers—Rutledge's drug store		3 50
Lamp for oculist—W. F. Sonthen		1 40
Making black mantle for oculist—Nellie Fay		5 00
Clerical services—E. H. Barker		2 00
Clerical services—L. M. Hall.....		4 80
		4 20

\$2,153 97

APPENDIX No. 14—Library.

Expressage on twelve boxes books—Patterson & Co.....	\$2 00
Expressage on one case books—Patterson & Co.....	75
Expressage on one box books—Patterson & Co.....	50
Expressage on two cases books—Patterson & Co.....	2 00
Expressage on one case books—Patterson & Co.....	1 00
Expressage—Wells, Fargo & Co.....	30
Expressage—Wells, Fargo & Co.....	2 10
Five hundred 2-cent stamps—N. B. Byrne	10 00
One hundred and fifty 1-cent stamps—N. B. Byrne	1 50
Sixty 5-cent stamps—N. B. Byrne.....	3 00
Twenty-five 2-cent postals—N. B. Byrne.....	50
One Edison mimeograph—Samuel Hill Co.....	20 00
Insurance—Canton Insurance Co.....	2 15
Gum tragacanth—A. B. Merrill	1 00

DISBURSEMENTS—Continued.

Expressage—Wells, Fargo & Co.	\$0 70
Expressage—Wells, Fargo & Co.	2 40
Proceedings Academy of Science—H. Welter	3 55
Ten volumes "North American Review"—H. C. Maercker	6 90
Subscriptions for following periodicals—C. S. Greene:	
"Critic"	2 55
"Harper's Magazine"	3 15
"Magazine American History"	4 25
"Mining and Scientific Press"	2 40
"Rural Press"	2 40
"Overland Monthly"	3 20
"Blackwood and Edinburgh Quarterly"	11 95
"Nineteenth Century," "Fortnightly," and "Continental Review"	11 50
"Westminster Review"	3 65
One thousand postal cards—N. B. Byrne	10 00
Expressage—Wells, Fargo & Co.	3 60
Expressage on one case books—Patterson & Co.	50
Expressage on one package maps—Patterson & Co.	50
Expressage on three cases paper—Patterson & Co.	1 75
Freight on one case books—Southern Pacific Co.	12 45
Subscription to periodicals—H. Welter	4 48
Academy of Natural Sciences	5 00
Vol. 37, American Association for Advancement of Science	1 30
Expressage—Wells, Fargo & Co.	1 10
Expressage on three cases—Patterson & Co.	2 00
One box stub pens—W. B. Hardy	1 00
Two boxes No. 404 pens—W. B. Hardy	1 50
One box Falcon pens—W. B. Hardy	75
One half pint scarlet ink—W. B. Hardy	60
Expressage—Wells, Fargo & Co.	3 50
Subscriptions for periodicals for year 1890—Kenyon News Agency	293 30
Transactions American Philological Association	2 00
Expressage—Wells, Fargo & Co.	4 75
Expressage on twenty-nine packages—Patterson & Co.	2 00
Expressage on two cases—Patterson & Co.	2 00
Expressage on one case—Patterson & Co.	75
Expressage on four cases books—Patterson & Co.	3 50
Expressage on one case books—Patterson & Co.	1 25
Expressage on one case photos—Patterson & Co.	50
Subscription to periodicals—H. Welter	(fcs 899.75) 176 41
One Mooray's Dictionary, Part 5—McMillian & Co.	2 93
Subscription to periodicals—Kenyon News Agency	17 05
Expressage—Wells, Fargo & Co.	4 65
Binding forty-eight newspaper files—Hicks-Judd Co.	84 00
Binding ninety-five volumes—Hicks-Judd Co.	71 82
Books—Mayer & Müller	(M. 1,753.05) 425 12
Expressage—Patterson & Co.	3 60
Three hundred $\frac{1}{2}$ x1 inch lattice—Niehaus Bros. & Co.	2 15
One hammer—C. L. Maxwell	75
One screwdriver—C. L. Maxwell	30
Expressage—Wells, Fargo & Co.	1 65
Binding sixty-two volumes—Hicks-Judd Co.	56 30
Journal American Oriental Society, Vol. XIII	4 73
Transactions of American Philological Association for 1889	2 50
Four volumes "North American Review"—H. C. Maercker	4 25
One Bosworth & Lotter's Dictionary—McMillian & Co.	3 49
Expressage on one case books—Patterson & Co.	1 00
Expressage on four cases books—Patterson & Co.	1 50
Freight on four cases books—Southern Pacific Co.	80
Expressage—Wells, Fargo & Co.	2 65
Binding twenty-seven newspaper files—Hicks-Judd Co.	47 25
Fifty-five 15-cent stamps—N. B. Byrne	8 25
Two hundred and fifty 10-cent stamps—N. B. Byrne	25 00
One hundred and thirty-five 5-cent stamps—N. B. Byrne	6 75
Two hundred and fifty 1-cent stamps—N. B. Byrne	2 50
Binding two hundred and fifty-eight volumes—Hicks-Judd Co.	232 90
Expressage—Patterson & Co.	2 00
Memorial Academy of Sciences—H. Welter	2 96
Royal Philosophical Society—B. F. Stevens	14 47
Two letter copy books—W. B. Hardy	4 50
Periodicals from France—H. Welter	14 63
Expressage—Wells, Fargo & Co.	3 20
Purchase of books in Europe—Bernard Morse	500 00

DISBURSEMENTS—Continued.

Binding sixty-three volumes—Hicks-Judd Co.	\$55 55
Expressage on ten cases books—Patterson & Co.	9 75
Freight charges advanced—Patterson & Co.	6 70
Astronomical Journal, Cambridge	5 00
One Annual 1889—D. Appleton & Co.	5 40
New Review, seven months—Kenyon News Agency	1 05
Binding five hundred and fifty-five volumes—Hicks-Judd Co.	183 30
Proceedings for 1890—Academy of Natural Sciences	5 00
Expressage—Wells, Fargo & Co.	40

\$2,469 69

APPENDIX No. 15—Reese Library.

Purchase of books and periodicals	\$2,413 21
Expressage	52 85
Custom House dues	14 65
Insurance	9 62

\$2,490 33

APPENDIX No. 16—German Library.

Books from Th. Stauffer	\$8 88
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APPENDIX No. 17—Museum.

Two skins and skeletons of goats—E. F. Lorquin	\$250 00
Stuffing goats—Henry A. Ward	100 00
Freight—Henry A. Ward	6 38
One black-walnut show case—Möller & Sass	110 00
Two cabinets of cedar—Möller & Sass	150 00
One set of sheets of map of United States—W. L. Nicholson	50 00
Expressage on paper boxes—Patterson & Co.	35
Expressage on one case animals—Patterson & Co.	1 50
Expressage on one block cedar—Patterson & Co.	75
Freight on one case animals—Southern Pacific Co.	44 11
Twenty-nine relief maps—J. H. Emerton	87 00
Packing and cartage—J. H. Emerton	2 00
Expressage on one case models—Patterson & Co.	1 00
Freight on one case models—Southern Pacific Co.	4 07
Ives' strata and altitude map—J. T. B. Ives	14 00
Expressage—Wells, Fargo & Co.	4 75

\$825 91

APPENDIX No. 18—University Site Improvements.

One coil barbed wire and staples—Dunham, Carrigan & Hayden Co.	\$4 79
Labor, as per July payroll	227 00
Labor, as per August payroll	226 00
One Johnson hose coupling—H. W. Fenson	1 60
Labor, as per September payroll	210 00
Treatment of horse's eyes—Dr. A. de Tavel	84 50
Baling seventy-eight bales of hay (10 $\frac{125}{100}$ tons)—John Meyers	19 65
One lawn sprinkler—Pierce & Co.	2 50
Three iron wedges—Nelson & McLellan	1 50
One gallon lard oil—Joseph McClain	1 00
Two cans grease—Joseph McClain	30
One crosscut saw—Dunham, Carrigan & Hayden Co.	3 15
One one-man saw—Dunham, Carrigan & Hayden Co.	2 50
One pair Climax handles—Dunham, Carrigan & Hayden Co.	50
One Morrel saw-set—Dunham, Carrigan & Hayden Co.	1 40
One half dozen mill files—Dunham, Carrigan & Hayden Co.	95
Expressage (one roll wire and one package)—Patterson & Co.	50
Two hundred pounds coarse salt—Joseph McClain	2 40
New crossbar in rake—Nelson & McLellan	2 00
New tooth cleaner in rake—Nelson & McLellan	50
One casting and bolt for mower—Nelson & McLellan	75
Eight new shoes—Nelson & McLellan	4 00
Labor, as per October payroll	219 00
Steeling two picks—Nelson & McLellan	1 50
Two clevis pins and keys—Nelson & McLellan	25
One pick steeled and sharpened—Nelson & McLellan	90
Eight new shoes—Nelson & McLellan	4 00

DISBURSEMENTS—Continued.

Repairing harness—P. Nichelmann	\$8 00
Two zinc collar pads—P. Nichelmann	1 00
Four hame straps—P. Nichelmann	80
One pair spreads and rings—P. Nichelmann	50
Labor, as per November payroll	224 00
Fifteen hundred and thirty-one pounds seed oats—Paul Keyser	21 43
Labor, as per December payroll	218 00
Two shares sharpened, and plow handle—Nelson & McLellan	1 50
Eight new shoes—Nelson & McLellan	4 00
Eight 8-ounce vials—A. B. Merrill	35
One journal—A. B. Merrill	1 50
Labor, as per January payroll	201 00
Expressage on eighteen sacks of oats—Patterson & Co.	3 50
Labor, as per February payroll	157 00
Repairing chain and nut to cart—Nelson & McLellan	75
Crank to grindstone—Nelson & McLellan	1 50
Two shares sharpened, and one bolt—Nelson & McLellan	75
Eight new shoes—Nelson & McLellan	4 00
Labor, as per March payroll	255 00
One 1½-inch elbow—Alameda Water Co.	15
Putting in pipe, etc., on campus—J. J. Dunn	190 02
Labor for April, as per payroll	305 00
Blacksmithing for April—Nelson & McLellan	14 10
One half dozen lawn rakes—Joseph McClain	4 20
Labor, as per May payroll	330 00
Blacksmithing for May—Nelson & McLellan	10 50
	<u>\$2,981 69</u>
APPENDIX No. 19— <i>University Printing Office.</i>	
Expressage—Patterson & Co.	\$12 35
Type—Tatum & Bowen	255 33
Paper—Blake, Moffitt & Towne	87 72
Ink—E. J. Shattuck & Co.	27 80
Printing press—Tatum & Bowen	336 25
Traveling expenses—J. W. Flynn	1 50
Sundries	3 50
	<u>\$724 45</u>

STATE APPROPRIATION (ONE-CENT FUND) FOR THE FISCAL YEAR
ENDING JUNE 30, 1889.

Statement of expenditures of the State University Fund, as directed in an Act of the Legislature of the State of California, entitled "An Act to provide for the permanent support and improvement of the University of California by the levy of a rate of taxation and the creation of a fund therefor," approved February 14, 1887.

RECEIPTS.	
May 13, 1889, by cash on Controller's warrant.....	\$92,385 74
DISBURSEMENTS.	
<i>To College of Chemistry.</i>	
Gas, from October, 1887, to June, 1888—Oakland Gas Co.....	\$150 64
Expressage on one barrel alcohol—Patterson & Co.....	1 25
Expressage on two cases, one barrel—Patterson & Co.....	1 50
One compression faucet—M. De La Montanya.....	75
Two gas cocks—M. De La Montanya.....	80
Sixteen assorted fittings—M. De La Montanya.....	1 60
Twelve feet gas pipe—M. De La Montanya.....	60
One foot tapering stove-pipe—M. De La Montanya.....	60
Two feet 6-inch stove-pipe—M. De La Montanya.....	80
Two feet 5½-inch stove-pipe—M. De La Montanya.....	70
One corrugated elbow, 6-inch—M. De La Montanya.....	75
One corrugated elbow, 5½-inch—M. De La Montanya.....	65
Twenty-one pounds acetic acid—Justinian Caire.....	3 78
Six hundred and twenty-four grains platinum—Justinian Caire.....	12 84
Twenty filters—Justinian Caire.....	27 00
Two Bunsen carbonic apparatus—Justinian Caire.....	2 00
Sixteen and one half feet steel wire cloth—Justinian Caire.....	6 38
One steel anvil.....	3 25
One hatchet.....	65
Twenty-one assorted drills.....	3 00
One set drills.....	30
Three wrenches.....	1 25
Bill of Franz Schilling, of Gehlberg, Germany, in marks; total in dollars and cents:	
One hundred and forty round bottles, No. 1, at .55 M.....	77.00
Case and packing.....	8.00
Sixty-two round bottles, No. 1, at .55 M.....	34.10
Two hundred and four round bottles, No. 4, at .30 M.....	61.20
Case and packing.....	8.00
Two hundred and three round bottles, No. 2, at .43 M.....	87.29
Thirteen preparation dishes, with cover, at .70 M.....	9.10
Case and packing.....	8.00
Two hundred and thirty-two round bottles, No. 3, at .40 M.....	92.80
Case and packing.....	8.00
Five sets beakers, twelve in a set, at 4.75 M.....	23.75
Twelve sets beakers, twelve in a set, at 3.00 M.....	36.00
Twenty-six sets beakers, ten in a set, at 2.00 M.....	52.00
Four sets beakers, eight in a set, at 1.50 M.....	6.00
Case and packing.....	7.00
Forty-six sets beakers, eight in a set, at 1.50 M.....	69.00
Fifty sets beakers, five in a set, at .75 M.....	37.50
Fifty-two sets beakers, three in a set, at .38 M.....	19.76
Fifty flasks, 100 gr., at 6.00 M. per 100.....	3.00
Twenty-five flasks, 60 gr., at 5.50 M. per 100.....	1.37
Twelve flasks, 30 gr., at 5.00 M. per 100.....	.60
Fifty flasks, 200 gr., at 9.00 M. per 100.....	4.50
Case and packing.....	7.00
Twenty-five flasks, 1,000 gr., at .25 M.....	6.25
Fifty flasks, 500 gr., at .18 M.....	9.00
Two hundred flasks, 250 gr., at .10 M.....	20.00
Case and packing.....	9.00
Thirty flasks, 750 gr., at .20 M.....	6.00
Two Erlenmeyer's flasks, 1,000 gr., at .33 M.....	.66
Ten Erlenmeyer's flasks, 500 gr., at .22 M.....	2.20
Twenty Erlenmeyer's flasks, 250 gr., at .14 M.....	2.80
Twenty-five Erlenmeyer's flasks, 100 gr., at .07 M.....	1.75

DISBURSEMENTS—Continued.

Twenty-five Erlenmeyer's flasks, 60 gr., at .06 M.	M.1.50
Five retorts, without tubes, 60 gr., at .09 M. ....	.45
Six retorts, without tubes, 100 gr., at .10 M. ....	.60
Five retorts, without tubes, 200 gr., at .12½ M. ....	.62
Five retorts, without tubes, 250 gr., at .16 M. ....	.80
One retort, without tube, 500 gr., at .22 M. ....	.22
Five retorts, without tubes, 1,000 gr., at .36 M.	1.80
Six retorts, with tubes and stoppers, 100 gr., at .20 M.	1.20
Five retorts, with tubes and stoppers, 250 gr., at .30 M.	1.50
Five retorts, with tubes and stoppers, 500 gr., at .40 M.	2.00
Three retorts, with tubes and stoppers, 2,000 gr., at .80 M.	2.40
Two retorts, with tubes and stoppers, 4,000 gr., at 1.25 M.	1.50
Case and packing	9.00
Six chloride of calcium tubes, No. 490 <i>a</i> , at .35 M.	2.10
Six chloride of calcium tubes, No. 490 <i>b</i> , at .35 M.	2.10
Six chloride of calcium tubes, No. 490 <i>c</i> , at .35 M.	2.10
Six potash apparatus, No. 397, at .40 M.	2.40
Two potash apparatus, No. 398, at .90 M.	1.80
Two potash apparatus, No. 399, at .41 M. ....	.82
Two potash apparatus, No. 400, at .45 M. ....	.90
Two potash apparatus, No. 401, at .41 M. ....	.82
Two potash apparatus, No. 395, at 1.80 M.	3.60
Three nitrogen apparatus, No 390, at .50 M.	1.50
Two nitrogen apparatus, No. 392, at .40 M. ....	.80
Twelve chloride of calcium tubes, No. 388, at .40 M.	4.80
One reduction apparatus, No. 424, at 1.00 M.	1.00
One apparatus, No. 408, at .88 M. ....	.88
One apparatus, No. 423, at .70 M. ....	.70
Two apparatus, No. 420, at 1.00 M.	2.00
Two apparatus, No. 421, at .70 M.	1.40
Two apparatus, No. 422, at .40 M. ....	.80
One apparatus, No. 403, at 2.60 M.	2.60
One apparatus, No. 404, at 2.60 M.	2.60
Two arsenic testing tiles, No. 467, at .35 M. ....	.70
Five bulb tubes, No. 475, at .20 M.	1.00
One hundred and seventy-five glass tears, No. 474, at 1.80 M. per 100	3.15
One warming tube, No. 510.	1.00
Five tubes, No. 524, at .40 M.	2.00
Five tubes, No. 523, at .40 M.	2.00
Two tubes, No. 520, at .12 M. ....	.24
Ten flasks, 10 gr., at .05 M. ....	.50
Ten flasks, 15 gr., at .06 M. ....	.60
Ten flasks, 20 gr., at .07 M. ....	.70
Ten flasks, 25 gr., at .08 M. ....	.80
Ten flasks, 40 gr., at .09 M. ....	.90
One retort, without tubes, 10 gr., at .06 M. ....	.06
One retort, without tubes, 15 gr., at .08 M. ....	.08
One retort, without tubes, 20 gr., at .10 M. ....	.10
One retort, without tubes, 25 gr., at .13 M. ....	.13
One retort, without tubes, 40 gr. ....	.15
One retort, without tubes, 50 gr. ....	.17
One retort, without tubes, 75 gr. ....	.20
One retort, with tubes, 10 gr. ....	.10
Two retorts, with tubes, 15 gr., at .13 M. ....	.26
Two retorts, with tubes, 20 gr., at .16 M. ....	.32
One retort, with tubes, 25 gr. ....	.18
Two retorts, with tubes, 40 gr., at .20 M. ....	.40
One retort, with tubes, 50 gr. ....	.22
One retort, with tubes, 75 gr. ....	.28
Six tubes, No. 573, at .45 M.	2.70
Five safety funnels, No. 591, at .70 M.	3.50
Five safety funnels, No. 592, at .50 M.	2.50
Six drying tubes, No. 605, at .33 M.	1.98
Six drying tubes, No. 606, at .30 M.	1.80
One gas regulator, No. 438, at 1.50 M.	1.50
Two gas regulators, No. 439, at .65 M.	1.30
Two glass pipettes, No. 432, at 1.00 M.	2.00
Four glass pipettes, No. 439, at 1.20 M.	4.80
Two glass pipettes, No. 433, at 1.00 M.	2.00
Two glass pipettes, No. 437, at 3.00 M.	6.00
Four apparatus, No. 383, at .80 M.	3.20
Twenty-six apparatus, No. 359, at 1.00 M.	26.00

DISBURSEMENTS—Continued.

Six pipettes, without mark, 10 c.c.m., at .05 M.	M.0.30
Five pipettes, without mark, 10 c.c.m., at .06 M.	.30
Seven pipettes, without mark, 25 c.c.m., at .07 M.	.49
Eight pipettes, without mark, 50 c.c.m., at .10 M.	.80
Six pipettes, without mark, 75 c.c.m., at .12 M.	.72
Three pipettes, without mark, 100 c.c.m. at .15 M.	.45
Two pipettes, without mark, 125 c.c.m., at .20 M.	.40
Two pipettes, without mark, 140 c.c.m., at .25 M.	.50
Twelve chloride of calcium tubes, No. 489, at .05 M.	.60
Five chloride of calcium tubes, No. 487, at .15 M.	.75
Case and packing.	9.00
Twenty-six tiles for arsenic testing, No. 469, at .03 M.	.78
Twenty-six tiles for arsenic testing, No. 470, at .03 M.	.78
Twenty-six tiles for arsenic testing, No. 471, at .03 M.	.78
Three pipettes, with mark, 1 c.c.m., at .10 M.	.30
Three pipettes, with mark, 2 c.c.m., at .12 M.	.36
Three pipettes, with mark, 5 c.c.m., at .15 M.	.45
Five pipettes, with mark, 10 c.c.m., at .18 M.	.90
Twelve pipettes, with mark, 15 c.c.m., at .20 M.	2.40
Five pipettes, with mark, 20 c.c.m., at .25 M.	1.25
Two pipettes, with mark, 25 c.c.m., at .30 M.	.60
One pipette, with mark, 75 c.c.m., at .42 M.	.42
Three pipettes, with mark, 100 c.c.m., at .50 M.	1.50
Two cylinders, with mouth, 5 c.c.m., at .30 M.	.60
Two cylinders, with mouth, 10 c.c.m., at .40 M.	.80
Seven graduated stoppered bottles, 5 c.c.m., at .10 M.	.70
Five graduated stoppered bottles, 10 c.c.m., at .10 M.	.50
Two graduated stoppered bottles, 20 c.c.m., at .15 M.	.30
Five graduated stoppered bottles, 25 c.c.m., at .15 M.	.75
Five graduated stoppered bottles, 50 c.c.m., at .20 M.	1.00
Five graduated stoppered bottles, 100 c.c.m., at .25 M.	1.25
Two graduated stoppered bottles, 50 and 55 c.c.m., at .30 M.	.60
Three graduated stoppered bottles, 200 c.c.m., at .35 M.	1.05
Four graduated stoppered bottles, 250 c.c.m., at .45 M.	1.80
Three graduated stoppered bottles, 300 c.c.m., at .50 M.	1.50
Five graduated stoppered bottles, 500 c.c.m., at .60 M.	3.00
Two graduated stoppered bottles, 100 and 110 c.c.m., at .40 M.	.80
Two graduated stoppered bottles, 250 c.c.m., at .70 M.	1.40
Two graduated stoppered bottles, 2,000 c.c.m., at 1.50 M.	3.00
One Woulff bottle, three necks, 10 gr.	.33
One Woulff bottle, three necks, 25 gr.	.43
One Woulff bottle, three necks, 50 gr.	.50
One Woulff bottle, three necks, 75 gr.	.60
One Woulff bottle, three necks, 100 gr.	.70
Two thermometers, graduated, 10-100 degrees, at 1.50 M.	3.00
Two thermometers, graduated, 100-200 degrees, at 3.00 M.	6.00
Two thermometers, graduated, 200-360 degrees, at 3.40 M.	6.80
One thermometer, scale $50\frac{1}{10}$ degrees	6.00
One thermometer, scale $50\frac{1}{5}$ degrees	5.00
One thermometer, scale $50\frac{1}{10}$ degrees	6.00
Three thermometers, scale 100 degrees, at 1.50 M.	4.50
Six thermometers, scale 250 degrees, at 1.80 M.	10.80
Six thermometers, scale 200 degrees, at 1.80 M.	10.80
Five thermometers, scale 360 degrees, at 2.00 M.	10.00
Two thermometers, scale 100 degrees, at 1.35 M.	2.70
Two thermometers, paper scale, 100 degrees, at 1.00 M.	2.00
One thermometer, graduated in $\frac{1}{10}$ degree	1.50
One thermometer, graduated in $\frac{1}{10}$ degree	1.80
Thirty-three thermometer stands, at .10 M.	3.30
Five safety funnels, No. 585, at .15 M.	.75
Six safety funnels, No. 586, at .20 M.	1.20
Five safety funnels, No. 587, at .35 M.	1.75
Two safety funnels, No. 588, at .25 M.	.50
Two safety funnels, No. 589, at .25 M.	.50
Two safety funnels, No. 590, at .33 M.	.66
Twenty funnel tubes, No. 601, at .12 M.	2.40
Twenty-two funnel tubes, No. 602, at .10 M.	2.20
One flask, with movable head, 50 gr.	.40
One flask, with movable head, 75 gr.	.45
One flask, with movable head, 100 gr.	.50
One flask, with movable head, 125 gr.	.60

DISBURSEMENTS—Continued.

One flask, with movable head, 150 gr.	M.0.70
Two flasks for gas washing, 100 gr., at .75 M.	1.50
One flask for gas washing, 200 gr.	1.00
One flask for gas washing, 500 gr.	1.25
One flask for gas washing, 1,000 gr.	2.00
One flask for gas washing, 750 gr.	1.70
One flask for gas washing, 250 gr.	1.10
Two flasks for gas washing, 200 gr., at 1.00 M.	2.00
Fifteen glass stopcocks, No. 612, at 1.00 M.	15.00
One 3-mouthed stopcock.	1.75
Two large stopcocks, at 2.00 M.	4.00
Two apparatus, with soxhlets, 100 gr., at 1.75 M.	3.50
Two apparatus, with soxhlets, 60 gr., at 1.40 M.	2.80
One flask for washing gases, $\frac{1}{4}$ litre. ....	.75
One flask for washing gases, $\frac{1}{2}$ litre.	1.00
Two chloride of calcium cylinders, 30 c.m. high, at .75 M.	1.50
Four chloride of calcium cylinders, 28 c.m. high, at .65 M.	2.60
Five chloride of calcium cylinders, 25 c.m. high, at .60 M.	3.00
One head, No. 503, 10 gr. ....	.12
One head, No. 503, 15 gr. ....	.15
One head, No. 503, 20 gr. ....	.17
One head, No. 503, 25 gr. ....	.20
One head, No. 503, 50 gr. ....	.25
One head, No. 503, 75 gr. ....	.30
One head, No. 503, 100 gr. ....	.35
One eye syringe, No. 465. ....	.80
Two round-bottom flasks, 10 gr., at .07 M. ....	.14
Two round-bottom flasks, 20 gr., at .08 M. ....	.16
Two round-bottom flasks, 25 gr., at .09 M. ....	.18
Two round-bottom flasks, 30 gr., at .10 M. ....	.20
Two round-bottom flasks, 40 gr., at .11 M. ....	.22
Two round-bottom flasks, 50 gr., at .12 M. ....	.24
Two round-bottom flasks, 75 gr., at .13 M. ....	.26
Two pear-shaped flasks, 10 gr., at .07 M. ....	.14
Two pear-shaped flasks, 20 gr., at .08 M. ....	.16
Two pear-shaped flasks, 25 gr., at .09 M. ....	.18
Two pear-shaped flasks, 30 gr., at .10 M. ....	.20
Two pear-shaped flasks, 40 gr., at .11 M. ....	.22
Two pear-shaped flasks, 50 gr., at .12 M. ....	.24
Two pear-shaped flasks, 75 gr., at .13 M. ....	.26
Twenty flasks, 50 gr., at .05 $\frac{1}{2}$ M.	1.10
Twelve flasks, 75 gr., at .06 M. ....	.72
Case and packing.	8.00
Twenty reduction tubes, at .20 M.	4.00
One hundred test tubes, 15 c.m. long, 16 m.m.	2.70
One hundred test tubes, 18 c.m. long, 16 m.m.	3.20
One hundred test tubes, 20 c.m. long, 20 m.m.	4.00
One hundred test tubes, 15 c.m. long, 20 m.m.	3.10
One hundred test tubes, 10 c.m. long, 20 m.m.	2.50
One hundred test tubes, 18 c.m. long, 20 m.m.	3.70
One hundred test tubes, 10 c.m. long, 16 m.m.	2.00
One hundred test tubes, 10 c.m. long, 13 m.m.	1.60
One hundred test tubes, 12 c.m. long, 20 m.m.	3.00
One hundred test tubes, 14 c.m. long, 13 m.m.	2.20
One hundred test tubes, 20 c.m. long, 33 m.m.	6.00
One hundred test tubes, 18 c.m. long, 13 m.m.	2.90
One hundred test tubes, 8 c.m. long, 10 m.m.	1.20
One hundred test tubes, 10 c.m. long, 10 m.m.	1.30
One hundred test tubes, 12 c.m. long, 10 m.m.	1.80
One hundred test tubes, 5 c.m. long, 6 m.m. ....	.75
One hundred test tubes, 5 c.m. long, 10 m.m.	1.00
One hundred test tubes, 5 c.m. long, 13 m.m.	1.20
One hundred test tubes, 5 c.m. long, 16 m.m.	1.40
One hundred test tubes, 5 c.m. long, 20 m.m.	1.50
Five dropping tubes, at .18 M. ....	.90
Eight $\frac{1}{4}$ -litre flasks, at .30 M.	2.40
Twenty reduction tubes, 1 bulb, at .20 M.	4.00
Ten reduction tubes, 2 bulb, at .30 M.	3.00
One pair colorimeter cylinders.	5.50
Three flasks, with tubes, 10 gr., at .10 M. ....	.30
Three flasks, with tubes, 20 gr., at .12 M. ....	.36
Two flasks, with tubes, 25 gr., at .12 M. ....	.24
Three flasks, with tubes, 30 gr., at .13 M. ....	.39

DISBURSEMENTS—Continued.

Two flasks, with tubes, 40 gr., at .15 M.	M.0.30
Two flasks, with tubes, 50 gr., at .16 M.	.32
Two flasks, with tubes, 75 gr., at .18 M.	.36
Two flasks, with tubes, 100 gr., at .20 M.	.40
One separatory funnel, $\frac{1}{4}$ litre	1.50
One separatory funnel, $\frac{1}{2}$ litre	2.00
One separatory funnel, 1 litre	2.50
One separatory funnel, 200 gr.	1.25
Two separatory funnels, 150 gr., at 1.25 M.	2.50
Five funnels, 5 c.m. diameter, at .07 M.	.35
One hundred test tubes, 10 c.m. by 13 m.m.	1.60
One hundred test tubes, 10 c.m. by 16 m.m.	2.00
Case and packing	9.00
One hundred test tubes, 18 c.m. long, 33 m.m. diameter	5.50
One hundred test tubes, 15 c.m. long, 26 m.m. diameter	3.90
One hundred test tubes, 15 c.m. long, 33 m.m. diameter	4.50
One hundred test tubes, 10 c.m. long, 26 m.m. diameter	3.00
One hundred test tubes, 18 c.m. long, 20 m.m. diameter	3.70
One hundred test tubes, 18 c.m. long, 26 m.m. diameter	4.50
One hundred test tubes, 8 c.m. long, 16 m.m. diameter	1.50
One hundred test tubes, 8 c.m. long, 13 m.m. diameter	1.30
One hundred test tubes, 8 c.m. long, 6 m.m. diameter	1.00
Ten test tubes, 4 c.m. long, 6 m.m. diameter	.30
Ten test tubes, 8 c.m. long, 13 m.m. diameter	.50
Ten test tubes, 10 c.m. long, 15 m.m. diameter	.55
Ten test tubes, 12 c.m. long, 20 m.m. diameter	.60
Ten test tubes, 15 c.m. long, 26 m.m. diameter	.70
One washing bottle, $\frac{1}{4}$ litre	.85
One washing bottle, $\frac{1}{2}$ litre	1.00
One washing bottle, 1 litre	1.75
Six distillation tubes, with 2 bulbs, at 1.00 M.	6.00
Six distillation tubes, with 3 bulbs, at 1.50 M.	9.00
Five distillation tubes, with 4 bulbs, at 2.00 M.	10.00
Six distillation tubes, with 5 bulbs, at 3.00 M.	18.00
Six distillation tubes, with 6 bulbs, at 4.00 M.	24.00
Twelve weighing bottles, at .35 M.	4.20
One hundred and fifty homœopathic bottles, 3 gr., at .12 M.	18.00
Twenty-six homœopathic bottles, 5 gr., at .14 $\frac{1}{2}$ M.	3.77
Twenty-five homœopathic bottles, 10 gr., at .16 M.	4.00
Twenty-six homœopathic bottles, 15 gr., at .18 M.	4.68
Twenty-five homœopathic bottles, 20 gr., at .20 M.	5.00
One urine tester—Dr. Vogel	1.25
One urine tester—Dr. Heller	.55
One hydrometer, 70	.60
One hydrometer, 80	.50
One milk tester, with thermometer	1.50
Six covers, at .10 M.	.60
Case and packing	9.00
Twenty preparation tubes, 200x85 m.m., at 1.00 M.	20.00
Nine preparation tubes, 160x70 m.m., at .70 M.	6.30
Fourteen preparation tubes, 180x50 m.m., at .50 M.	7.00
Eighteen preparation tubes, 100x30 m.m., at .33 M.	5.94
Twelve preparation tubes, 85x30 m.m., at .32 M.	3.84
Twelve preparation tubes, 50x25 m.m., at .25 M.	3.00
Eight round bottles, 200 gr., at .18 M.	1.44
Six round bottles, 2,000 gr., at .80 M.	4.80
Four round bottles, 3,000 gr., at 1.25 M.	5.00
Twelve round bottles, 2,000 gr., at .75 M.	9.00
One Woulff bottle, three necks, 200 gr., at .45 M.	.45
One Woulff bottle, three necks, 250 gr., at .50 M.	.50
One Woulff bottle, 500 gr., at .70 M.	.70
Case and packing	8.00
Two round bottles, 3,000 gr., at 1.25 M.	2.50
Five round bottles, 5,000 gr., at 1.90 M.	9.50
Two bottles, with tubulure, 8 litres, at 3.00 M.	6.00
One bottle, with tubulure, 6 litres	2.50
One bottle, with tubulure, 5 litres	2.00
One double cylinder, 2,500 c.c.m.	5.50
One double cylinder, 2,000 c.c.m.	5.30
One double cylinder, 1,500 c.c.m.	4.30
One double cylinder, 1,000 litres	3.20
One double cylinder, 100 c.c.m.	1.10
Two double cylinders, 50 c.c.m., at .85 M.	1.70

DISBURSEMENTS—Continued.

Two double cylinders, 25 c.c.m., at .70 M.	M.1.40
One cylinder, with mouth, 500 c.c.m.	1.50
Two cylinders, with mouth, 50 c.c.m.	1.20
Six gas bottles, 1,000 gr., at .45 M.	2.70
Three gas bottles, 250 gr., at .20 M.	.60
One Woulff bottle, with two necks, 1,000 gr.	.80
One cylinder, with double spout, 1,000 c.c.m.	2.70
Two bottles, with tubulure, 1 litre	1.50
Casing and packing	8.00
Twenty-two kilos. soft glass tubing, Nos. 1-6, at 1.00 M.	22.00
Five and one half kilos. glass stirring rods, at 1.00 M.	5.50
One burette, 100 $\frac{1}{2}$ c.c.m.	2.20
One burette, 100 $\frac{1}{2}$ c.c.m.	3.10
One burette, 50 $\frac{1}{10}$ c.c.m.	1.40
One burette, 50 $\frac{1}{10}$ c.c.m.	2.25
One burette, 100 $\frac{1}{10}$ c.c.m.	1.70
One hairoil burette, 250 c.c.m.	1.80
One hairoil burette, 500 c.c.m.	2.50
Ten test tubes, 60-10 m.m., at .04 M.	.40
Twenty-two funnels, 4 c.m. wide, at .06 M.	1.32
Twenty-two funnels, 5 c.m. wide, at .07 M.	1.54
Thirty funnels, 7 c.m. wide, at .08 M.	2.40
Twenty-four watch glasses, 10 m.m. diam., at .07 M.	1.68
Twenty-five watch glasses, 20 m.m. diam., at .08 M.	2.00
Twenty-five watch glasses, 30 m.m. diam., at .10 M.	2.50
Twenty-four watch glasses, 40 m.m. diam., at .12 M.	2.88
Eighteen watch glasses, 50 m.m. diam., at .15 M.	2.70
Eighteen watch glasses, 75 m.m. diam., at .20 M.	3.60
Ten watch glasses, 100 m.m. diam., at .50 M.	5.00
Five watch glasses, 200 m.m. diam., at .70 M.	3.50
Case and packing	4.50

M. 1,518.67

Less 2 per cent for cash..... 30.37

M. 1,488.30

\$357 75

Bill of C. A. F. Kahlbaum, Berlin—amounts in marks,
total in dollars:

Five kilos. aluminium ammonium sulphate	3.50
Two and one half kilos. arsenic	3.00
One half kilo. calcium sulphide	1.50
One kilo. hydrofluoric acid	1.50
One quarter kilo. aluminium sulphate	2.00
One and one half kilos. pulverized iron	1.80
One half kilo. iron sulphate	.50
One half kilo. iodine	17.50
One quarter kilo. potassium arsenite	1.13
One quarter kilo. potassium arsenate	1.13
One quarter kilo. chromium oxide	1.13
One half kilo. chromic acid	6.00
Two and one half kilos. iron sesquichloride	2.50
Two and one half kilos. aluminium hydrate	2.00
Two and one half kilos. aluminum sulphate	.75
Two and one half kilos. aluminum chloride	2.75
Two and one half kilos. aluminum nitrate	5.75
Two and one half kilos. aluminum sulphate (commercial)	1.25
One and one half kilos. arsenic acid (commercial)	.90
One hundred and twenty-five gr. copper	.75
Two and one half kilos. barium nitrate	3.25
Ten kilos. ferric acid	20.00
One quarter kilo. copper turnings	.63
One quarter kilo. ferrous oxide	1.00
One quarter kilo. iron oxide	.63
Twenty-nine gr. magnesium	2.90
Twenty-five gr. aluminium	4.38
One half book aluminium (book form)	2.25
One kilo. iron sulphide	1.00
Two hundred and fifty gr. potassium pyrosulphate	.63
Two hundred and fifty gr. potassium phosphate	1.50
Two hundred and fifty gr. ammonium iodide	10.00
Two hundred and fifty gr. ammonium sulphate	.33
Two hundred and fifty gr. magnesium carbonate	1.10
Two hundred and fifty gr. magnesium sodium phosphate	1.25

DISBURSEMENTS—Continued.

One kilo. arsenic acid	M.1.00
Two hundred and fifty gr. ammonium bichromate	1.50
Two hundred and fifty gr. cobalt carbonate	6.25
Two hundred and fifty gr. ammonium bromide	1.20
Fifty gr. iron sesquichloride .....	.50
One hundred gr. coraline	1.00
One fourth kilo. antimony	2.50
Fifty gr. cobalt chloride (free of nickel)	2.00
One kilo. commercial antimony	1.10
One fourth kilo. lead	1.00
Fifty gr. aluminium in bars	6.50
One fourth kilo. cadmium	2.50
One fourth kilo. antimony trioxide	1.50
One fourth kilo. arsenious acid .....	.88
One half kilo. potassium bisulphate	1.13
One half kilo. antimonie acid	5.50
One fourth kilo. peroxide of lead .....	.88
One hundred and twenty-five gr. potassium iodate	5.63
One kilo. benzotrichloride	16.00
One fourth kilo. phosphoric acid	1.50
One half kilo. sodium sulphate .....	.20
Two and one half kilos. strontium nitrate	2.50
Two kilos. arsenic acid	3.00
Five kilos. fluorspar	2.00
Two and one half kilos. potassium bichromate	4.50
One kilo. potassium chloride .....	.80
Five kilos. potassium bichromate (commercial)	5.00
Two and one half kilos. calcium chloride	1.25
One half kilo. anhydrous acetic acid	10.00
Two and one half kilos. potassium hydrate	4.25
Five kilos. barium carbonate	6.50
Two and one half kilos. calcium carbonate	1.50
Two and one half kilos. ammonium carbonate	3.75
Ten kilos. ammonium carbonate (commercial)	10.00
Two and one half kilos. sodium hydrate	4.00
Five kilos. barium hydrate	3.00
Five kilos. magnesium sulphate	1.50
One and one half kilos. magnesium carbonate	1.35
Five kilos. sodium bisulphide	5.00
Two hundred and fifty gr. magnesium oxide .....	.63
Five kilos. barium chloride	3.00
Two and one half kilos. potassium hydrate	11.25
Two and one half kilos. potassium hydrate	12.00
Two hundred and fifty gr. asbestos	1.00
One kilo. potassium carbonate	2.20
Two and one half kilos. lead nitrate	2.75
One kilo. chloral hydrate	8.00
One kilo. potassium sulphate	1.00
One half kilo. calcium carbonate	1.50
Two and one half kilos. potassium nitrate	2.75
Two and one half kilos. potassium sodium carbonate	9.00
Two and one half kilos. barium hydrate	3.50
One half kilo. barium carbonate	2.00
Two and one half kilos. potassium bicarbonate	3.75
Two hundred and fifty gr. baric acid .....	.38
Two hundred and fifty gr. precipitated manganese dioxide	1.88
Two hundred and fifty gr. calcium phosphate .....	.50
One kilo. lead chromate	4.00
One half kilo. calcium oxide .....	.35
One half kilo. potassium nitrate	3.00
One fourth kilo. sodium hyposulphite	2.13
Two and one half kilos. potassium hydrate	4.50
One fourth kilo. barium sulphide .....	.93
One half kilo. potassium iodide	13.50
One fourth kilo. manganese chloride .....	.63
One fourth kilo. calcium phosphate	1.38
One half kilo. barium peroxide (hydrated)	3.25
One fourth kilo. potassium bromide	1.00
One quarter kilo. potassium chromate	1.00
One quarter kilo. lead carbonate .....	.88
One hundred and twenty-five gr. manganese sulphate .....	.35
One hundred and twenty-five gr. potassium bromate	2.13
Twenty-five gr. potassium periodate	4.50

DISBURSEMENTS—Continued.

One half gr. osmium acid	M.2.40
One and one half kilos. potassium permanganate	3.45
One kilo. copper carbonate	3.50
Ten kilos. sodium phosphate	10.00
Five kilos. sodium bicarbonate	4.25
Two and one half kilos. sodium carbonate	1.50
Two and one half kilos. sodium hyposulphite	1.75
Two and one half kilos. sodium hydrate	14.00
Two and one half kilos. sodium hydrate, in sticks	3.50
Two and one half kilos. sodium carbonate	5.50
One kilo. sodium nitrate	1.20
One kilo. potassium cyanide	5.00
Two kilos. chloroform (commercial)	7.60
Two and one half kilos. potassium hydrate	5.00
One kilo. sodium chloride .....	.60
One kilo. manganese carbonate	5.50
One half kilo. molybdic acid	4.50
One half kilo. soda lime	1.25
One quarter kilo. zinc oxide .....	.63
One quarter kilo. sulphur .....	.28
One half kilo. copper perchloride	2.00
One half kilo. tungsten acid sodium	1.25
One half kilo. strontium nitrate	1.30
One quarter kilo. nickel carbonate	2.13
One half kilo. ammonium bicarbonate	2.50
One half kilo. sulphur .....	.25
Two and one half kilos. zinc dust	1.38
One quarter kilo. copper oxide	2.00
One half kilo. copper sulphate .....	.50
One quarter kilo. strontium chloride .....	.28
One quarter kilo. sodium nitrate	1.25
One half kilo. ammonium molybdate	4.50
One quarter kilo. sodium silicate	1.50
One quarter kilo. crystallized sulphur .....	.43
One quarter kilo. sodium pyrophosphate .....	.50
One quarter kilo. zinc chloride .....	.55
One quarter kilo. sodium nitrate .....	.23
One quarter kilo. nickel chloride	1.75
One quarter kilo. nickel sulphate .....	.63
One quarter kilo. zinc chloride .....	.95
One quarter kilo. copper perchloride	2.25
One quarter kilo. mercury nitrate	1.83
One half kilo. mercury bichloride	3.25
One half kilo. mercury oxide	4.40
Twenty-five gr. silver	5.50
One quarter kilo. nickel ammonium sulphate .....	.53
One hundred and twenty-five gr. sodium hydrate	2.75
Two hundred and fifty gr. sodium bisulphate .....	.30
One hundred and twenty-five gr. phosphoric acid .....	.63
One quarter kilo. strontium hydrate	1.75
Two hundred and fifty gr. nickel hydrate	1.50
Two hundred and fifty gr. mercury binitrate	2.20
Two hundred and fifty gr. tin oxide	1.25
One half kilo. commercial bismuth	10.00
One quarter kilo. copper oxide	1.13
One quarter kilo. mercury oxide	2.25
One hundred and twenty-five gr. bismuth hydrate	3.50
Two hundred and fifty gr. mercuric chloride	2.13
One half kilo. No. 1 zinc	3.00
One kilo. No. 2 zinc	1.30
One quarter kilo. tin	1.88
Two hundred and fifty gr. commercial nickel	2.00
One hundred gr. crystallized phosphoric acid .....	.75
One hundred and twenty-five gr. reduced copper	1.38
Two hundred and fifty gr. sodium amalgam	2.50
Twenty-five gr. lithium carbonate .....	.88
Ten gr. caprinic acid	3.70
Ten gr. vanadium acid	5.50
Fifty gr. zinc sodium	1.00
Fifty gr. uranium oxide	4.80
Ten gr. asparaginic acid	3.00
Twenty-five gr. nickel oxide	1.20
Ten gr. aethyl cyanide	1.80

DISBURSEMENTS—Continued.

Twenty-five gr. phosphorous acid.....	M.1.38
Five gr. thallium.....	1.00
Five gr. thallium carbonate.....	2.00
Five gr. thallium chloride.....	2.00
Two and one half gr. thallium sulphate.....	1.00
Two and one half gr. selenic acid.....	1.13
Two and one half gr. rubidium chloride.....	1.50
Ten gr. cinnamic acid.....	3.00
Ten gr. cumarine.....	2.60
Twenty-five gr. uranium nitrate.....	1.80
Ten gr. vanadium chloride.....	2.50
Ten gr. selenous acid.....	2.60
Ten gr. methyl cyanide.....	2.40
Twenty-five gr. selenium.....	5.00
Fifty gr. bismuth.....	1.80
Ten gr. methyl aniline.....	1.20
Twenty-five gr. bismuth oxide.....	1.18
Twenty-five gr. sodium metaphosphate.....	.75
Twenty-five gr. molybdiu oxide.....	1.75
Ten kilos. glycerine.....	20.00
Two and one half kilos. calcium chloride.....	2.00
Five kilos. naphthaline.....	10.00
One half kilo. carbamide.....	22.50
Ten and one half kilos. iron ammonium sulphate.....	.90
Two kilos. anthracene (commercial).....	12.00
Three kilos. potassium ferro-cyanide (commercial).....	6.60
Two kilos. potassium ferro-cyanide.....	6.00
Two kilos. benzoic acid.....	24.00
Two kilos. oxalic acid.....	4.40
Two and one half kilos. tin bichloride.....	5.75
One kilo. commercial naphthal.....	2.50
One half kilo. anthracene.....	6.00
Two and one half kilos. sodium sulphide.....	1.50
One kilo. binitrate benzol.....	4.50
One and one half kilos. potassium nitrite.....	3.45
One and one half kilos. magnesium chloride.....	1.05
One half kilo. chloric acid.....	9.00
One half kilo. diaethyl aniline.....	6.00
One kilo. potassium sulpho-cyanide.....	3.70
One half kilo. potassium ferri-cyanide.....	3.00
Three kilos. phenol.....	12.00
One quarter kilo. cobalt nitrate.....	2.75
Two hundred gr. dextrine.....	.70
Five hundred gr. chloral.....	6.00
Two hundred gr. potassium cyanide.....	4.00
One hundred gr. tropaeoline.....	2.20
Two hundred and fifty gr. bismuth nitrate.....	4.50
One hundred gr. phtalic acid.....	1.50
One hundred gr. rosalic acid.....	1.00
One hundred gr. alazarine.....	.70
One hundred gr. methyl orange.....	1.50
Two hundred and fifty gr. bismuth nitrate.....	3.25
One hundred gr. pyridine.....	1.00
One hundred gr. sodium nitro-ferri-cyanide.....	6.50
One hundred gr. schleim acid.....	4.50
One hundred gr. dichlorhydrine.....	5.00
Twenty gr. allylsulpho-carbamide.....	2.40
Ten gr. amidopropionic acid.....	3.00
Ten gr. phloroglucine.....	3.00
Twenty gr. amidobenzoic acid.....	3.00
Two gr. tyrosine.....	7.00
Ten gr. alanine.....	3.00
Two gr. leucine.....	6.00
Ten gr. nonylic acid.....	3.00
Thirty gr. undecylenic acid.....	4.50
Ten gr. staeonic acid.....	5.00
Five gr. sarcosine.....	6.00
Ten gr. phloridzine.....	2.00
Ten gr. ostylalcohol.....	3.00
Ten gr. aethyl benzol.....	2.70
Twenty gr. cinnamic acid.....	2.00
Ten gr. cinnamol.....	1.80
Two hundred and fifty gr. tongstenic acid.....	5.00

DISBURSEMENTS—Continued.

Twenty-five kilos. iron sulphide	M. 10.00	
Two and one half gr. palladium	10.00	
One half gr. lithium	10.00	
Cases and packing	125.00	
	M. 1,005.40	
Less rebate	7.00	
	M. 998.40	
Less 1½ per cent cash	14.98	
	M. 983.42	\$236 40
Custom charges on goods from F. Schilling & Co. and C. A. F. Kahlbaum—J. R. McDonald & Co		61 30
Two thousand three hundred cubic feet gas—Oakland Gas Co.		6 35
One thousand nine hundred cubic feet gas—Oakland Gas Co.		5 25
Eight hundred cubic feet gas—Oakland Gas Co.		2 20
Expressage on one case—Patterson & Co.		50
Insurance—Union Insurance Co.		12 79
One dozen zinc cells for battery—California Electrical Works		7 20
One imperial counter scales—Fairbanks & Hutchinson		25 00
Fourteen copper covers and rings—Geo. A. Tay & Co.		12 60
Two dozen 2-quart bucket covers—Geo. A. Tay & Co.		5 00
One 9-inch pot—Geo. A. Tay & Co.		85
One enameled Maslin kettle—Geo. A. Tay & Co.		2 00
Five thousand three hundred cubic feet gas—Oakland Gas Co.		14 60
Two glass retorts—Justinian Caire		5 00
Twelve nests beakers—Justinian Caire		7 20
Two sheets asbestos—Justinian Caire		3 60
Twelve small evaporating dishes—Justinian Caire		2 98
Twelve large evaporating dishes—Justinian Caire		4 32
Brass wire—Justinian Caire		88
Fifty-nine feet rubber tubing—Justinian Caire		4 13
One Battersea crucible—Justinian Caire		50
One blowpipe—Justinian Caire		2 25
One lamp—Justinian Caire		3 00
Thirty-six funnels—Justinian Caire		4 50
Thirty-six beakers—Justinian Caire		4 20
Three carboys muriatic acid—S. F. Chemical Works		14 60
Three carboys aqua ammonia—S. F. Gas Co.		27 60
Expressage, one barrel glassware—Patterson & Co.		50
Expressage, three carboys ammonia—Patterson & Co.		2 25
Expressage, eleven carboys acid—Patterson & Co.		7 15
Expressage, one box, one bale—Patterson & Co.		50
Expressage, one package—Patterson & Co.		25
Expressage, one package pots—Patterson & Co.		25
Expressage, one package—Patterson & Co.		25
Expressage, two boxes glass—Patterson & Co.		50
Seven thousand cubic feet gas—Oakland Gas Co.		19 25
Insurance—Union Insurance Co.		3 22
Freight on goods from F. Schilling & Co. and C. A. F. Kahlbaum—William Wolf & Co.		66 02
Eleven thousand cubic feet gas—Oakland Gas Co.		30 25
Five thousand eight hundred cubic feet gas—Oakland Gas Co.		15 95
Custom charges on ten cases—George W. Reed		4 60
One chimney cap—Richard Chaloner		1 25
Expressage on eight cases from ship—Patterson & Co.		6 00
Expressage on five cases from ship—Patterson & Co.		4 00
Expressage on three cases from ship—Patterson & Co.		3 00
Three thousand four hundred cubic feet gas—Oakland Gas Co.		9 35
Nine thousand three hundred cubic feet gas—Oakland Gas Co.		25 60
One brick furnace for acids—H. L. Whitney		41 00
One dozen air cocks—Geo. H. Tay & Co.		4 80
One dozen nipples (short)—Geo. H. Tay & Co.		60
One dozen ¾ T's by ½—Geo. H. Tay & Co.		60
Two firefronts—Geo. H. Tay & Co.		8 00
Twenty-two grate bars—Geo. H. Tay & Co.		8 80
Four grate rests—Geo. H. Tay & Co.		1 20
Two rings and covers—Geo. H. Tay & Co.		2 50
One No. 4 dish kettle—Geo. H. Tay & Co.		1 75
One No. 9 round pot—Geo. H. Tay & Co.		1 00
Twenty and one half pounds ether—Justinian Caire		16 40
Expressage on one box bottles—Patterson & Co.		50

DISBURSEMENTS—Continued.

Putting in bibb in boiler room—J. J. Menges		\$3 53
Ten pounds dry graphite—James G. Allen		2 00
Ten thousand seven hundred cubic feet of gas—Oakland Gas Co.		29 45
Two barrels alcohol—C. Jost & Co.		62 50
Freight on seven cases—Southern Pacific Co.		30 18
Insurance—Canton Insurance Co.		5 64
Expressage on one package—Patterson & Co.		25
Bill of James W. Queen & Co., Philadelphia:		
Three 1-ounce acid bottles	\$1 20	
Two 2-ounce acid bottles	1 00	
One set bell glasses	1 50	
One square yard caoutchouc (sheet)	1 50	
Six brushes, sponge end	43	
Three packages 10-inch filter paper	1 02	
Two packages 6-inch filter paper	33	
Two packages 8-inch filter paper	44	
Two packages 10-inch filter paper	56	
Two packages 13-inch filter paper	80	
One quire No. 597 filter paper	1 00	
One package No. 589 filter paper, 5½ c.m.	60	
One package No. 589 filter paper, 7 c.m.	70	
One package No. 589 filter paper, 9 c.m.	90	
One package No. 589 filter paper, 11 c.m.	1 10	
One package No. 589 filter paper, 12½ c.m.	1 35	
One package No. 589 filter paper, 15 c.m.	1 60	
One package No. 590 filter paper, 5½ c.m.	75	
One package No. 590 filter paper, 7 c.m.	80	
One package No. 590 filter paper, 9 c.m.	1 25	
One package No. 590 filter paper, 11 c.m.	1 45	
One package No. 590 filter paper, 12½ c.m.	1 65	
One package No. 590 filter paper, 15 c.m.	2 00	
One quire rice paper	75	
One palladium tube, filled	2 00	
Two prolanges	30	
One copper oxygen retort	4 00	
One iron oxygen retort	2 00	
One semi-berlin oxygen retort	1 25	
One clay retort	2 00	
One set porcelain rings	1 50	
Two sets iron rings	80	
Twelve feet rubber tubing	2 04	
One glass spatula	25	
One dozen Boh. 5-inch t.t.	1 20	
One dozen Boh. 6-inch t.t.	1 80	
Three 5-inch side neck t.t.	45	
Two 6-inch side neck t.t.	40	
One 7-inch side neck t.t.	25	
	\$44 95	
Less 20 per cent	8 99	
One Fritsch alkalimeter	\$0 45	
One Soxhlet lactodensimeter	2 00	
One large Kipp's apparatus	8 00	
One 1-pint Kipp's apparatus	4 50	
One 1-quart Kipp's apparatus	6 00	
One 1-quart Kipp's apparatus	5 00	
One 1-gallon Kipp's apparatus	8 00	
One set metric weights	3 50	
Ten nests Griffin beakers, 0-3	5 50	
Two nests Griffin beakers, 1-6	3 10	
Two nests Griffin beakers, 1-8	5 20	
One nest Griffin beakers, 1-10	3 40	
One nest Griffin beakers, 1-12	5 00	
Ten nests Berzelius beakers, 000-0	1 80	
Five nests Berzelius beakers, 0-5	4 00	
Two nests Berzelius beakers, 1-6	2 00	
One nest Berzelius beakers, 1-8	1 60	
One nest Berzelius beakers, 1-12	3 50	
Four nests tall beakers	9 60	
Two nests Griffin beakers, without lip	1 60	
One bell glass	50	
Two iron clamps	1 00	

35 96

DISBURSEMENTS—Continued.

One Bunsen clamp	\$0 80
Two Hoffman clamps, small	40
One Hoffman clamp, large	25
Two Mohrs' clamps, small	20
Two Mohrs' clamps, medium	30
One Mohrs' clamp, large	20
Two adjustable clamps	70
Two fastener clamps, small	40
Two fastener clamps, large	50
Two fastener clamps, universal	80
One 12-inch condenser	1 10
One glass condenser	1 25
Two 15-inch condensers	2 40
One 18-inch condenser	1 35
One 24-inch condenser	2 00
One condenser, with tubes	3 00
One cork borer sharpener	1 25
Sixteen rose crucibles, covers, and tubes	6 40
Five nests crystal dishes, No. 6	5 00
Three nests crystal dishes, No. 8	3 75
Two nests crystal dishes, No. 10	4 00
Five R. B. P. crucibles, No. 000	60
Five R. B. P. crucibles, No. 00	90
Ten R. B. P. crucibles, No. 0	2 50
Ten R. B. P. crucibles, No. 1	3 00
Five R. B. P. crucibles, No. 2	2 00
Two R. B. P. crucibles, No. 3	1 00
Two R. B. P. crucibles, No. 4	1 20
One R. B. P. crucible, No. 5	70
One unglazed crucible, 100 c.c.m.	25
One unglazed crucible, 500 c.c.m.	75
Two Wessler cylinders, 50 c.c.m.	1 00
Two Wessler cylinders, 100 c.c.m.	1 50
One tresinus desiccator	3 00
Five R. B. P. evaporating dishes, No. 000	50
Five R. B. P. evaporating dishes, No. 00	75
Five R. B. P. evaporating dishes, No. 0	1 00
Five R. B. P. evaporating dishes, No. 1	1 50
Five R. B. P. evaporating dishes, No. 2	1 75
Three R. B. P. evaporating dishes, No. 3	1 20
Two R. B. P. evaporating dishes, No. 4	90
Two R. B. P. evaporating dishes, No. 5	1 10
One R. B. P. evaporating dish, No. 6	75
Five semi-berlin evaporating dishes, No. 1	1 00
Five semi-berlin evaporating dishes, No. 2	1 25
Five semi-berlin evaporating dishes, No. 3	1 50
Two semi-berlin evaporating dishes, No. 4	70
Five semi-berlin evaporating dishes, No. 5	2 00
One nest dishes	1 00
One nest dishes	1 10
One nest dishes	1 10
One nest dishes	2 00
One dropping bottle	20
Five packages 8-inch filter paper	1 30
One quire Japanese filter paper	25
Six burette tips	25
Two pounds square tubing	1 50
One pound flat tubing	60
One pound flat tubing	75
Three pounds Bohemian tubing	3 00
Three small tripods	1 50
Three medium tripods	1 80
Three large tripods	2 25
One lixiviating jar, one pint	20
One lixiviating jar, one and one half pints	25
One lixiviating jar, two pints	30
One lixiviating jar, three pints	40
One lixiviating jar, four pints	50
Two books gummed labels	80
One 8-ounce Liebig retort	50
One 16-ounce Liebig retort	75
Three pounds rubber stoppers	8 25
One pound rubber stoppers (perforated)	2 75

DISBURSEMENTS—Continued.

Three pounds black rubber tubing	\$10 50	
Two deflagrating spoons	45	
Two horn spoons	35	
One glass spoon (small)	25	
One glass spoon (large)	30	
One new form stopcock	1 50	
One three-way stopcock	2 50	
One burette support	3 50	
One condenser support	1 50	
One funnel support	1 50	
Five 2-ring retort stands	2 50	
Three 4-ring retort stands	2 10	
One 4-ring retort stand	1 00	
One squibbs support	8 00	
Two plain iron tripods	50	
One 3-ring iron tripod	45	
One No. 2958 iron tripod	35	
One No. 2959 iron tripod	45	
One No. 2960 iron tripod	65	
Two weighing tubes	40	
	<hr/>	
	\$227 65	
Less 25 per cent	56 91	
	<hr/>	\$170 74
One set nickel avoirdupois weights	\$3 00	
One set troy weights	1 00	
Two packages 13-inch filter paper	1 10	
One package 15-inch filter paper	65	
Two packages gray filter paper	1 00	
Two packages gray filter paper	1 20	
	<hr/>	
	\$7 95	
Less 10 per cent	79	
	<hr/>	7 16
Twelve Bunsen burners	\$5 40	
One Bunsen burner (Queen's)	1 00	
Three burner attachments	75	
One burner tripod	25	
Twenty packages 3-inch filter paper	2 00	
Thirty packages 4-inch filter paper	4 80	
Fifty packages 5-inch filter paper	10 00	
Fifty packages 6-inch filter paper	11 00	
Five sets T. T. (12 each)	3 50	
Two dozen T. T., side tube	1 95	
	<hr/>	
	\$40 65	
Less 30 per cent	12 19	
	<hr/>	28 46
Fifteen dozen reagent bottles, at \$1 75	\$26 25	
Three and three quarters dozen reagent bottles, at \$2	7 50	
One and one sixth dozen reagent bottles, at \$2 25	2 63	
Three and two thirds dozen reagent bottles, at \$3 25	11 92	
Seven and two thirds dozen reagent bottles, at \$1 50	11 50	
One and one twelfth dozen reagent bottles, at \$1 35	1 46	
Eight and one fourth dozen reagent bottles, at \$1 35	11 14	
Five sixths dozen reagent bottles, at \$4	3 34	
	<hr/>	
	\$75 74	
Less 5 per cent	3 79	
	<hr/>	71 95
Ten nests Griffin beakers, 000-0	2 50	
One earthen retort	1 35	
One sacchrometer	1 75	
One 3-inch stopcock	1 25	
Boxing and packing	15 00	
Two dozen 4 1/2-inch evaporating dishes—California Pottery and T. C. Co.	6 00	
Two dozen 6-inch evaporating dishes—California Pottery and T. C. Co.	8 00	
One half dozen 8-inch evaporating dishes—California Pottery and T. C. Co.	3 00	
Oiling desk and shelves—S. Wakeham	2 00	
Two carboys muriatic acid—San Francisco Chemical Works	8 29	

DISBURSEMENTS—Continued.

One hydrogen sulphide apparatus—J. W. Queen & Co.	\$4 00	
One calcium chloride jar—J. W. Queen & Co.	1 90	
Two cork knives—J. W. Queen & Co.	50	
Twelve dropping bottles—J. W. Queen & Co.	1 75	
One pint gas bottle—J. W. Queen & Co.	1 25	
Seven ounces beads—J. W. Queen & Co.	70	
Two pounds milk glass rod—J. W. Queen & Co.	1 20	
Twelve $\frac{1}{2}$ -ounce glass jars—J. W. Queen & Co.	75	
Twelve 1-ounce glass jars—J. W. Queen & Co.	85	
Twelve 2-ounce glass jars—J. W. Queen & Co.	1 15	
Twelve 4-ounce glass jars—J. W. Queen & Co.	1 50	
Six 8-ounce glass jars—J. W. Queen & Co.	1 08	
Three 16-ounce glass jars—J. W. Queen & Co.	75	
One retort clark—J. W. Queen & Co.	40	
Two sets iron rings—J. W. Queen & Co.	2 00	
Two sets iron rings—J. W. Queen & Co.	1 20	
	\$20 98	
Less 25 per cent	5 25	\$15 74
One 50-c.c. burette—J. W. Queen & Co.	\$4 00	
Two spring clamps—J. W. Queen & Co.	1 50	
Two universal clamps—J. W. Queen & Co.	1 50	
Two Hoffman clamps—J. W. Queen & Co.	1 60	
Two Bunsen clamps—J. W. Queen & Co.	1 50	
One brass mortar—J. W. Queen & Co.	5 00	
Four prolongs—J. W. Queen & Co.	60	
Two bone spoons—J. W. Queen & Co.	35	
One three-way stopcock—J. W. Queen & Co.	1 50	
One retort stand and rings—J. W. Queen & Co.	90	
One retort stand and rings—J. W. Queen & Co.	1 25	
Three iron tripods—J. W. Queen & Co.	1 00	
	\$30 70	
Less 20 per cent	4 14	16 56
Two packages filter paper—J. W. Queen & Co.	\$1 40	
One platinum cone—J. W. Queen & Co.	3 00	
One platinum spatula—J. W. Queen & Co.	3 90	
One platinum sponge—J. W. Queen & Co.	1 71	
One platinum boat—J. W. Queen & Co.	5 16	
One ureometer doremus—J. W. Queen & Co.	2 00	
	\$17 17	
Less 10 per cent	1 72	15 45
Six dozen caps for reagents, 4-ounce—J. W. Queen & Co.	\$3 00	
Three dozen caps for reagents, 8-ounce—J. W. Queen & Co.	1 95	
One dozen caps for reagents, 16-ounce—J. W. Queen & Co.	70	
One dozen caps for reagents, 32-ounce—J. W. Queen & Co.	75	
Five dozen caps for reagents, 2 $\frac{1}{2}$ -ounce—J. W. Queen & Co.	3 00	
One platinum cone—J. W. Queen & Co.	1 35	
One glass spatula—J. W. Queen & Co.	10	
		11 45
Boxing and packing—J. W. Queen & Co.		1 75
Gas for May—Oakland Gas Co.		28 35
Expressage on two barrels alcohol—Patterson & Co.		2 50
Expressage on five cases, two boxes—Patterson & Co.		3 00
Expressage on two carboys acid—Patterson & Co.		1 50
Freight on one case glassware—Southern Pacific Co.		7 90
One analytical balance—Justinian Caire	\$114 00	
One analytical balance—Justinian Caire	125 00	
One set weights—Justinian Caire	18 00	
Twelve riders—Justinian Caire	3 60	
	\$260 60	
Less 15 per cent	39 09	221 51
Two hundred and sixty grams platinum—Justinian Caire		101 40
One hundred and twenty pounds aqua ammonia—San Francisco Gaslight Co.		9 60

DISBURSEMENTS—Continued.

Three hundred and thirty-four pounds aqua ammonia—San Francisco Gaslight Co.		\$26 70	
Two hundred and seventy-seven feet glass tubing—Justinian Caire	\$28 09		
One eighth tubing, white and black—Justinian Caire	1 91		
One gasoline furnace—Justinian Caire	23 40		
Ten gallons gasoline—Justinian Caire	1 80		
One flask quicksilver—Justinian Caire	47 50		
Assorted corks—Justinian Caire	15 00		
	\$117 70		
Less	50		
		117 20	
Three copper condensers—Geo. H. Tay & Co.		12 06	
Ten copper bowls—Geo. H. Tay & Co.		5 60	
One stove pot—Geo. H. Tay & Co.	\$2 50		
One convex kettle—Geo. H. Tay & Co.	2 69		
One lipped kettle 14—Geo. H. Tay & Co.	44		
One lipped kettle 20—Geo. H. Tay & Co.	75		
One lipped kettle 24—Geo. H. Tay & Co.	1 00		
Four Winds S. pans—Geo. H. Tay & Co.	3 80		
Two child's mugs—Geo. H. Tay & Co.	75		
Three miner's cups—Geo. H. Tay & Co.	1 87		
Four rice boilers—Geo. H. Tay & Co.	10 85		
Three buckets—Geo. H. Tay & Co.	6 19		
One kitchen dipper—Geo. H. Tay & Co.	82		
One Windsor dipper—Geo. H. Tay & Co.	63		
	\$32 29		
Less 33 $\frac{1}{3}$ per cent	10 76		
		21 53	
Six cast-iron bowls—Geo. H. Tay & Co.		1 00	
Three wood stands—Geo. H. Tay & Co.		4 50	
One stove kettle—Geo. H. Tay & Co.		1 00	
Gas—Oakland Gas Co.		34 10	
			\$2,500 23
Salaries for year ending June 30, 1889			2,147 52
<i>To Department of Lick Observatory.</i>			
One wood sawing machine—Hawley Bros. Hardware Co.	\$75 00		
One horse tread power—Hawley Bros. Hardware Co.	175 00		
	\$250 00		
Less 25 per cent	62 50		
		\$187 50	
Cartage on above—Hawley Bros. Hardware Co.		75	
One 5-quire ex. Denny ledger—Dutton & Partridge		4 25	
One half dozen cap flexible index—Dutton & Partridge		90	
Ten reams manilla note—Dutton & Partridge		7 50	
Ten reams manilla letter—Dutton & Partridge		11 50	
One ream manilla ledger—Dutton & Partridge		1 60	
One fourth quart violet ink—Dutton & Partridge		1 15	
One ream 24x36 manilla—Dutton & Partridge		6 00	
Two dozen stylographic ink—Dutton & Partridge		2 40	
One quart copying ink—Dutton & Partridge		1 00	
One fourth quire blotting paper—Dutton & Partridge		1 75	
Two dozen penholders—Dutton & Partridge		50	
One box Excelsior wax—Dutton & Partridge		1 25	
One half dozen packages pins—Dutton & Partridge		50	
One box McGill's fasteners, No. 3—Dutton & Partridge		35	
One box McGill's fasteners, No. 4—Dutton & Partridge		40	
Two bean ink stamp ribbon—Dutton & Partridge		1 50	
Two purple ink stamp ribbon—Dutton & Partridge		1 50	
Two hectograph stamp ribbon—Dutton & Partridge		1 50	
Five balls twine—Dutton & Partridge		72	
Three gross pens—Dutton & Partridge		2 00	
One dozen toilet paper—Dutton & Partridge		1 85	
Drayage to depot—Dutton & Partridge		50	
Two thousand and seventy-five pounds barley—J. Archambeault		22 31	
Three tons barley hay—J. Archambeault		45 00	
One thousand pounds oats—J. Archambeault		20 00	
Two bars castile soap—J. Archambeault		1 00	
Ten tin candlesticks—J. Archambeault		1 00	

DISBURSEMENTS—Continued.

Express charges during June—J. Archambeault.....	\$5 60
Four Herald box stoves—Holbrook, Merrill & Stetson.....	22 00
Two Buck stoves and furniture—Holbrook, Merrill & Stetson.....	68 26
Four York Gem stoves—Holbrook, Merrill & Stetson.....	74 00
Case and cartage—Holbrook, Merrill & Stetson.....	1 50
Cleaning five astronomical clocks and five chronometers—F. H. McConnell.....	25 00
Railway and stage fare—F. H. McConnell.....	7 50
Repairing and furnishing poles and material for the reconstruction of Observatory telegraph line to San José—California Electrical Works.....	100 00
Teaming during June—J. Wandell.....	53 75
Three hundred and two pounds barbed wire fencing—Huntington-Hopkins Co.....	15 10
Three hundred ft. galvanized netting—Huntington-Hopkins Co.....	4 13
Four hundred and fifty feet galvanized netting—Huntington-Hopkins Co.....	6 19
Twelve pounds galvanized staples—Huntington-Hopkins Co.....	1 20
One dozen $\frac{3}{8}$ -inch felt print pads—S. C. Partridge.....	35
One dozen $\frac{3}{8}$ -inch felt print pads—S. C. Partridge.....	80
One dozen $\frac{3}{8}$ -inch felt print pads—S. C. Partridge.....	1 75
One half dozen $\frac{1}{4}$ -inch felt print pads—S. C. Partridge.....	1 50
Two boxes Matchless polish—L. H. Moise.....	1 00
One consecutive dater—C. A. Klinkner & Co.....	5 00
Four No. 85 thermometers—Standard Thermometer Co.....	10 00
One rubber stamp—C. A. Klinkner & Co.....	1 50
Fifty galvanized fire buckets—W. W. Montague & Co.....	18 00
One thousand feet 1x4 T. and G. B.—Santa Clara Lumber Co.....	37 50
One thousand feet 1x12 mer. surfaced—Santa Clara Lumber Co.....	26 50
Five hundred six-foot pickets—Santa Clara Lumber Co.....	15 00
Ninety-one 1x8x16—Santa Clara Lumber Co.....	22 50
Six kitchen brooms—J. Archambeault.....	2 00
Three scrubbing brushes—J. Archambeault.....	1 00
Two feather dusters—J. Archambeault.....	4 00
Two feather dusters—J. Archambeault.....	1 50
Three dust pans and brushes—J. Archambeault.....	2 25
One box yellow washing soap—J. Archambeault.....	5 00
Twelve whisk brooms—J. Archambeault.....	2 00
Two galvanized iron pails—J. Archambeault.....	2 50
Three dozen cakes sapolio—J. Archambeault.....	3 00
One half box sand soap—J. Archambeault.....	3 00
Two sponges—J. Archambeault.....	1 80
One half dozen lamp cleaners—J. Archambeault.....	1 25
Twelve yards toweling—J. Archambeault.....	2 16
Carpet sweeper—J. Archambeault.....	3 75
One hundred and fifty gallons Starlight oil—Yates & Co.....	30 00
Cartage on Starlight oil—Yates & Co.....	50
Twenty-five sheets 20x24 cardboard—Oscar Foss.....	5 00
Twenty-five sheets 16x20 cardboard—Oscar Foss.....	3 00
Fifty sheets 14x16 cardboard—Oscar Foss.....	5 00
Two hundred sheets 10x12 cardboard—Oscar Foss.....	9 00
Two hundred sheets 8x10 cardboard—Oscar Foss.....	5 50
Five 1-pound bottles yellow pruss. potash—Oscar Foss.....	3 00
One 16-ounce bottle pyro. developer, No. 1—Oscar Foss.....	2 00
One 16-ounce bottle pyro. developer, No. 2—Oscar Foss.....	50
Five pounds sal soda—Oscar Foss.....	50
Two dozen 3x4 transparency plates—Oscar Foss.....	1 20
Two dozen 4x5 transparency plates—Oscar Foss.....	1 50
Expense of J. E. Keeler inspecting earthquake instruments in California.....	15 00
Custom House charges on one case instruments—John H. Boden & Co.....	4 20
Typewriting by W. A. Scott.....	1 50
Freight on one box publications—Southern Pacific Co.....	3 20
One thousand 1-cent stamps—S. H. Wagener.....	10 00
One thousand 2-cent stamps—S. H. Wagener.....	20 00
Two hundred 5-cent stamps—S. H. Wagener.....	10 00
Five hundred 1-cent postal cards—S. H. Wagener.....	5 00
Two hundred and fifty 2-cent postal cards—S. H. Wagener.....	5 00
Four new shoes and four reset—T. A. Carroll.....	3 50
Five days' labor, fitting ventilators—Schettler & Co.....	20 00
Nine pounds solder—Schettler & Co.....	1 80
Charcoal—Schettler & Co.....	1 50

DISBURSEMENTS—Continued.

Rivets—Schettler & Co.	\$0 70
Fare to Mt. Hamilton and return—Schettler & Co.	5 00
Telegram to T. G. Phelps—D. C. Hindsall	50
Fees on affidavit—A. B. Merrill	50
Expressage on three packages—Wells, Fargo & Co.	85
Insurance—Balfour, Guthrie & Co.	22 50
Insurance—Manheim, Dibern & Co.	75 00
One portable ice machine—R. Whitman	200 00
Packing and shipping—R. Whitman	5 00
Binding eighty volumes—Hicks-Judd Co.	65 25
Mounting plates—Hicks-Judd Co.	4 50
Fifty cords wood—R. Kincaid	350 00
Two rubber developing trays—Oscar Foss	1 70
Two polished developing trays—Oscar Foss	1 80
Twelve sheets ruby paper—Oscar Foss	3 00
One pound citric acid—Oscar Foss	1 00
Four sheets ruby glass—Oscar Foss	5 00
Six dozen 5x8 dry plates—Oscar Foss	8 70
Boxing—Oscar Foss	75
One dozen Carbutt's trans. plates—Oscar Foss	4 25
One dozen Carbutt's dry plates—Oscar Foss	2 80
Two dozen Cramer rapid dry plates—Oscar Foss	5 60
Three dozen white alb. paper—Oscar Foss	3 00
One giant sounder—California Electrical Works	\$4 50
One splicing clamp—California Electrical Works	1 50
One vise and strap—California Electrical Works	3 25
One eccentric—California Electrical Works	1 00
Twenty-four window tubes—California Electrical Works	1 20
Four Fuller zincs—California Electrical Works	80
Twelve 4-candle-power Edison lamps—Cal. Elect. W'ks.	15 00
Six Victor keys—California Electrical Works	16 50
Fifteen pounds insulated wire—Cal. Electrical Works	7 50
German silver wire—California Electrical Works	2 00
	\$53 25
Less 10 per cent	5 32
	47 93
Boxing—California Electrical Works	30
Hauling during July and August—J. Wandell	31 38
Sheet brass, twenty-two pounds—Union Iron Works	11 00
Labor of machinist—Union Iron Works	6 40
Eleven pounds brass casting—Union Iron Works	3 30
Three hours pattern work—Union Iron Works	1 50
One hour machinist fitting—Union Iron Works	60
Two and a half hours machinist—Union Iron Works	2 00
Two galleys, 8 $\frac{3}{4}$ x13—H. A. Mathews	5 00
One mallet—H. A. Mathews	75
One planer—H. A. Mathews	50
One brayer—H. A. Mathews	1 50
One pint job ink—H. A. Mathews	75
One sponge—H. A. Mathews	25
One bottle benzine—H. A. Mathews	25
One type brush—H. A. Mathews	75
One "Elm City" card cutter—H. A. Mathews	15 00
Ten pounds bookbinder's glue—H. A. Mathews	1 50
Two glue brushes—H. A. Mathews	2 00
Two paste brushes	2 00
Thirty yards binder's cloth—H. A. Mathews	5 00
One sack flour—H. A. Mathews	1 25
One bookbinder's press—H. A. Mathews	12 00
Boxing and shipping—H. A. Mathews	50
Labor for one month—Jo. Roban	45 00
Board for one month of Jo. Roban—H. E. Mathews	20 00
Freight charges advanced during July—J. Archambeault	1 00
Express charges during July—J. Archambeault	80
Expressage on one box thermometers—Wells, Fargo & Co.	3 95
Expressage on one box steel rods—Wells, Fargo & Co.	7 25
Expressage on one package electros—Wells, Fargo & Co.	3 00
Expressage on one package papers—Wells, Fargo & Co.	25
Expressage on one book—Wells, Fargo & Co.	25
Expressage on one package rubber—Wells, Fargo & Co.	25
Expressage on one package castings—Wells, Fargo & Co.	25
Expressage on two packages tools—Wells, Fargo & Co.	50

DISBURSEMENTS—Continued.

Expressage on one package bolts—Wells, Fargo & Co.	\$0 25
Expressage on two packages stationery—Wells, Fargo & Co.	60
Expressage on three boxes machinery—Wells, Fargo & Co.	1 25
Expressage on one package steel rods—Wells, Fargo & Co.	25
Expressage on one package stationery—Wells, Fargo & Co.	25
Expressage on one package photo plates—Wells, Fargo & Co.	25
Expressage on one package photo plates—Wells, Fargo & Co.	30
Expressage on one package vulcanite—Wells, Fargo & Co.	25
Expressage on one package books—Wells, Fargo & Co.	1 65
Expressage on one package—Wells, Fargo & Co.	25
Express charges advanced—J. Archambeault	1 15
Freight charges advanced during August—J. Archambeault	4 74
Three hundred and fifty feet half redwood—California Mills	3 00
Three photo slides—Soule Photograph Co.	1 68
Six ax handles—J. Archambeault	2 25
One house broom—J. Archambeault	40
One quart sperm oil—J. Archambeault	1 00
Rent of Post Office box—S. H. Wagener	2 50
Two Mann's copybooks—Payot, Upham & Co.	2 78
One rubber stamp—H. A. Mathews	75
Registered letter—S. H. Wagener	60
One lamp burner—J. Archambeault	15
Two lamp chimneys—J. Archambeault	40
Five hundred 1-cent stamps—S. H. Wagener	5 00
Seven hundred and fifty 2-cent stamps—S. H. Wagener	15 00
One hundred 5-cent stamps—S. H. Wagener	5 00
Fifty 10-cent stamps—S. H. Wagener	5 00
One bottle special ink—Draper Manufacturing Co.	3 00
Rising Sun stove polish—J. Archambeault	1 00
Two stable halters—J. Archambeault	3 50
Assorted platinum wire—J. Archambeault	1 08
Subscription to "Science Observer"—John Richter, Jr.	5 00
Two gross carpet tacks—J. Archambeault	1 00
One pound carriage candles—J. Archambeault	75
One carriage whip—J. Archambeault	1 25
Freight charges advanced—J. Archambeault	8 63
One dozen coarse hand towels—A. McCullin	2 40
Setting four tires, and bolts—E. Fitzgerald	4 00
Thirteen tons barley hay—Antonio Bernal	195 00
Five gallons sperm oil—Allyn & White	5 00
Cleaning cottages—Mary Roban	8 00
"Petit Globe Geographique de Mars"—B. Westermann & Co.	1 50
Three sacks Premium salt—J. Archambeault	2 00
Nine and one half pounds paraffine—J. Archambeault	3 75
Two scrapbooks—Cunningham, Curtiss & Welch	2 00
One third dozen No. 42 pulleys—H. A. Mathews	\$0 83
One third dozen No. 25 pulleys—H. A. Mathews	1 17
One third dozen No. 85 pulleys—H. A. Mathews	80
	\$2 80
Less 15 per cent	42
	2 38
Two sets Martin's casters—H. A. Mathews	3 33
Traveling expenses of K. McLennan (examining trees)	11 25
Six portfolios, 22x31—Sanborn, Vail & Co.	5 65
Drawing and zinco-map of the region of total eclipse of January 1, 1889—California Label & MacCabe Lithographing Co.	16 00
Books from B. Westermann & Co.	121 16
Expenses incurred in survey of Mt. Hamilton:	
Supplies—Wm. G. Raymond	72 00
Transportation—Wm. G. Raymond	38 00
Salary of cook—Wm. G. Raymond	40 00
Two hundred and seventy-five pounds old type metal—Tatum & Bowen	24 05
Boxing and cartage	2 00
Hauling two and one half tons barley—J. R. Kincaid	17 50
Five thousand and thirty-eight pounds barley—Farmers Union	46 60
Twenty-five feet leather belting—Baker & Hamilton	12 50
One dozen East bromide—G. A. Douglass & Co.	10 50
One Laverne lantern—G. A. Douglass & Co.	28 00
One ream Hovey's albumen—G. A. Douglass & Co.	32 00

DISBURSEMENTS—Continued.

Four dozen lantern-slide plates—G. A. Douglass & Co.	\$2 60	
One thousand 8½x10½ rubber trays—G. A. Douglass & Co.	1 65	
Sixteen dozen 8x10 seed plates—G. A. Douglass & Co.	38 40	
	\$42 65	
Less 10 per cent	4 25	\$38 40
Boxing		60
Twenty-four tubes, 2½ inches by 12 feet—Union Iron Works	46 58	
One thousand feet T. and G. lumber—California Mills	55 00	
Five hundred and twenty feet 2x4 lumber—California Mills	26 00	
One hundred and twenty feet angle bead lumber—California Mills	5 00	
Cartage on lumber—California Mills	1 00	
Four barrels cement—Farmers Union	18 00	
Ten gallons machine oil—Whittier, Fuller & Co.	6 50	
Ten gallons pure sperm oil—Whittier, Fuller & Co.	10 00	
Ten gallons pure lard oil—Whittier, Fuller & Co.	9 00	
Cartage on oil—Whittier, Fuller & Co.	50	
Books—B. Westermann & Co.	16 88	
One thousand feet surfaced lumber—Santa Clara Lumber Co.	40 00	
One hundred feet surfaced lumber—Santa Clara Lumber Co.	4 00	
Two hundred and fifty feet white cedar—Santa Clara Lumber Co.	20 00	
One hundred feet white cedar—Santa Clara Lumber Co.	8 00	
Repairing tank—Santa Clara Lumber Co.	15 00	
Fare and expense of man—Santa Clara Lumber Co.	6 50	
Freight advances—J. Archambeault	50	
Expressage during September—Mt. Hamilton Stage Co.	18 65	
One bottle spavin cure—J. Archambeault	1 00	
One gross lamp wicks—J. Archambeault	75	
Fifteen large lamp wicks—J. Archambeault	75	
Three packages student lamp wicks—J. Archambeault	25	
Three packages No. A wicks—J. Archambeault	25	
One railroad lantern—H. A. Mathews	50	
One red globe—H. A. Mathews	1 25	
One roll blue paper—H. A. Mathews	3 50	
Traveling expenses of J. E. Keeler	3 90	
One dozen red and blue pencils—Cunningham, Curtiss & Welch	1 25	
One round ebony ruler—Cunningham, Curtiss & Welch	50	
Three balls twine—Cunningham, Curtiss & Welch	30	
Four balls hemp twine—Cunningham, Curtiss & Welch	80	
One box rubber bands—Cunningham, Curtiss & Welch	2 80	
One pint carmine ink—Cunningham, Curtiss & Welch	90	
Setting tires—Hatman & Normandin	3 00	
Repairing pole—Hatman & Normandin	1 25	
One half dozen ink bottles—H. A. Mathews	1 50	
Two Mann's copybooks—Payot, Upham & Co.	2 70	
One dozen awning pulleys—H. A. Mathews	\$2 50	
Five hundred feet cotton rope—H. A. Mathews	1 57	
	\$4 07	
Less 10 per cent	40	3 67
Four pair strap hinges, 10-inch—J. Archambeault		1 60
Eight pair strap hinges, 6-inch—J. Archambeault		2 00
Painting tanks, etc.—Jo. Roban		12 71
One rubber stamp—H. A. Mathews		1 00
Brass casting—W. T. Garratt & Co.		11 25
One bar tool steel—H. A. Mathews		1 50
Brass tubing—H. A. Mathews		1 50
Nine plate holders—H. A. Mathews		16 24
Two and one quarter boxes dip. tin—C. Badgley		20 25
Twenty-five pounds solder—C. Badgley		4 50
Two sacks charcoal—C. Badgley		1 50
Nails and resin—C. Badgley		1 00
Labor of one man—C. Badgley		16 00
Stage fare and board—C. Badgley		10 00
Hauling during October and November—J. R. Kincaid		16 07
Twenty pounds flax packing—Union Iron Works		10 00
One dozen pyramid pins—Cunningham, Curtiss & Welch		1 25
One gross No. 48 pens—Cunningham, Curtiss & Welch		75
One half dozen mucilage stands—Cunningham, Curtiss & Welch		1 50
One third dozen violet copying—Cunningham, Curtiss & Welch		4 00

DISBURSEMENTS—Continued.

One sixth dozen Arabin copying—Cunningham, Curtiss & Welch	\$2 00
One twelfth dozen staf. machine—Cunningham, Curtiss & Welch	1 00
Case for same—Cunningham, Curtiss & Welch	25
Six panes window glass—H. A. Mathews	7 03
Twelve panes window glass—H. A. Mathews	2 72
One standardizing lamp—Richard Briggs	10 00
Five dozen wicks for lamp—Richard Briggs	2 00
Five gallons pure Colza oil—Eimer & Amend	4 95
Repairing wheels to wagon—Hartman & Normandin	3 00
Freight charges advanced—J. Archambeault	21 17
One ream of paper—J. Archambeault	2 50
One thousand and thirty pounds of coal—Farmers Union	15 96
Five hundred newspaper wrappers—S. H. Wagener	5 50
Five hundred 1-cent stamps—S. H. Wagener	5 00
Five hundred 2-cent stamps—S. H. Wagener	10 00
One hundred 5-cent stamps—S. H. Wagener	5 00
Forty-five 10-cent stamps—S. H. Wagener	4 50
Expressage during October—Mount Hamilton Stage Co.	23 05
Eight new shoes—T. A. Carroll	4 00
Thirty-eight electrotypes—Charles Gilbert	43 35
Hauling and supplying sand—J. R. Kincaid	45 00
Hauling nine thousand brick—J. R. Kincaid	22 50
Rent of Post Office mail box—S. H. Wagener	2 50
Telegram to Rochester, N. Y.—Western Union Telegraph Co.	1 84
One swivel caster—H. A. Mathews	37
Rubber tire—H. A. Mathews	1 00
Telephone messages—Sunset Tel. Tel. Co.	1 50
One sweep and mop—J. Archambeault	50
Six packages of parlor matches—J. Archambeault	1 00
Lamp black—Farmers Union	15
Turpentine—Farmers Union	25
Marking pot—Farmers Union	30
Three brushes—Farmers Union	15
One dozen sheets of sandpaper—J. Archambeault	15
One dozen sheets of sandpaper—J. Archambeault	15
One dozen sheets of sandpaper—J. Archambeault	15
Twenty-two large screws—J. Archambeault	85
One fourth gallon linseed oil—J. Archambeault	30
Telephone messages—Sunset Telephone and Telegraph Co.	40
Expressage on diary—Cunningham, Curtiss & Welch	32
Expressage during November—Mount Hamilton Stage Co.	6 30
Freight on ten cases of oil—Goldberg, Bowen & Co.	1 20
Ten cases of Starlight oil—Goldberg, Bowen & Co.	26 46
Fifty feet weather strips—H. A. Mathews	3 60
Hauling fifteen stoves, stove furniture, ten cases oil, pipe, etc.— J. D. D. Bernal	24 50
Freight on publications—Southern Pacific Co.	3 50
Freight on ten cases oil—Southern Pacific Co.	40
One half dozen stove dampers—J. Archambeault	1 00
Fifty pounds waste—Union Iron Works	7 00
Labor on photographic stand—R. P. Fraser	50 00
Eight new shoes—T. A. Carroll	4 00
Burnishing steel—John Roach	3 00
One hundred 1-cent stamps—S. H. Wagener	1 00
Two hundred 2-cent stamps—S. H. Wagener	4 00
One piece buckskin—H. A. Mathews	3 00
Two axes—J. Archambeault	2 50
One cubic yard sand—J. R. Kincaid	4 50
Six pints liquid glue—J. Archambeault	3 90
Moving time line—Sunset Telephone and Telegraph Co.	6 85
Six lantern chimneys—J. Archambeault	1 00
Six packages wire cord—J. Archambeault	1 00
Twelve pounds chloride of lime—J. Archambeault	1 00
One seven-foot flag—Neville & Co.	6 00
One sixth dozen agate buckets—W. W. Montague & Co.	2 60
One sixth dozen lipped kettles—W. W. Montague & Co.	
Two dozen thumb tacks—H. S. Crocker & Co.	1 00
One diary—Cunningham, Curtiss & Welch	2 00
Ten bottles chloride gold—Oscar Foss	7 50
Three pounds liq. ammonia—Oscar Foss	1 50
Stage fare to San José—Chas. B. Hill	5 00
Premium on insurance—J. C. Mitchell & Son	25 00
Telegraph message—Western Union Telegraph Co.	1 00

DISBURSEMENTS—Continued.

One dozen globe valves—H. A. Mathews.....	\$3 60
Eight new shoes—T. A. Carroll.....	4 00
Ten packages toilet paper—J. Archambeault.....	2 00
One half dozen order books—Cunningham, Curtiss & Welch.....	60
One scrap book—Cunningham, Curtiss & Welch.....	75
Two horses for one night—Whitney & Donnelly.....	1 50
Post Office box rent—S. H. Wagener.....	2 50
Two bottles spavin cure—J. Archambeault.....	2 00
Five hundred envelopes—J. Archambeault.....	3 00
Rental of telephone for year ending August 15, 1889—Sunset Telephone and Telegraph Co.....	35 00
One pair four-surface prisms—J. A. Brashear.....	15 00
Mounting and silvering—J. A. Brashear.....	3 00
One cover for equatorial—Neville & Co.....	6 00
One cover for photo apparatus—Neville & Co.....	7 25
One cover for polar axes—Neville & Co.....	5 00
One atlas—B. Westermann & Co.....	2 25
Twenty plates, 7½x7½—Passavant's Plate Factory.....	3 45
Clearing cross on time line—Sunset Telephone and Telegraph Co.....	15 80
One dozen lantern globes—J. Archambeault.....	1 50
Seven and one half dozen diamond chimneys—J. Archambeault.....	1 46
One half dozen lamp shades—J. Archambeault.....	3 00
Labor making working drawings—J. Westram.....	18 00
One thousand 1-cent stamps—S. H. Wagener.....	10 00
Five hundred 2-cent stamps—S. H. Wagener.....	10 00
One hundred 5-cent stamps—S. H. Wagener.....	5 00
Five hundred 1-cent wrappers—S. H. Wagener.....	5 00
Observatory chair for 36-inch equatorial—R. P. Fraser.....	50 00
One thousand four hundred and eight pounds plate iron—Union Iron Works.....	70 40
Twenty-eight pounds wrought iron—Union Iron Works.....	1 12
Seventeen pounds Norway iron—Union Iron Works.....	1 02
Ninety-eight pounds angle iron—Union Iron Works.....	4 90
Three pounds iron washers—Union Iron Works.....	24
Twelve pounds iron nuts—Union Iron Works.....	1 32
Work on the above—Union Iron Works.....	37 80
Cartage and boxing—Union Iron Works.....	1 00
Binding fifty-four volumes—The Hicks-Judd Co.....	49 60
One book—B. Westermann & Co.....	1 77
Forging crank shaft—J. N. Knox.....	7 00
Three days' labor on eclipse apparatus—R. P. Fraser.....	15 00
Four and one half days' labor on repairs—R. P. Fraser.....	21 25
Replacing broken poles—Sunset Tel. Tel. Co.....	11 50
Four days' labor repairing boiler—Jos. Enright.....	24 00
Board and lodging—Jos. Enright.....	4 00
Stage fare—Jos. Enright.....	4 00
One day's labor making drawing—John Westram.....	6 00
Photographic supplies—H. Allen Mathews.....	31 12
Traveling expenses of eclipse observers.....	84 50
Freight on eclipse instruments.....	40 00
Four tarpaulins for covers.....	6 00
Fourteen dozen parlor matches—J. Archambeault.....	2 00
Five and one half dozen diamond chimneys—J. Archambeault.....	1 04
Five dozen bromide plates—H. Allen Mathews.....	3 75
One half dozen bottles watch oil—H. Allen Mathews.....	1 50
Six dozen door springs—J. Archambeault.....	1 50
Six Mann's copybooks—Payot, Upham & Co.....	6 75
Twenty packages tacks—J. Archambeault.....	1 00
One roll photo paper—H. Allen Mathews.....	1 00
Expressage—Mt. Hamilton Stage Co.....	3 65
Expressage—Mt. Hamilton Stage Co.....	29 60
Expressage—Wells, Fargo & Co.....	2 25
Freight advances—J. Archambeault.....	10 68
Freight advances—J. Archambeault.....	79
One pound nitrate silver—Reddington & Co.....	11 00
Thirty-eight pounds aqua ammonia—Reddington & Co.....	3 23
One hundred and twelve pounds hypo-sul. soda—Reddington & Co.....	4 48
Cartage—Reddington & Co.....	50
Twenty-eight and one half days' labor, making wooden jacket for pier of great telescope—R. P. Fraser.....	142 50
Traveling expenses of E. S. Holden to Sacramento.....	15 30
Four and one sixth dozen ferrotype plates—H. Allen Mathews.....	5 00
One sixth dozen developing trays—H. Allen Mathews.....	2 00

DISBURSEMENTS—Continued.

Five dozen trans. plates—H. Allen Mathews.....	\$3 75	
One sidehill plow—Truman, Hooker & Co.....	13 60	
Repairing telephone line—Sunset Tel. Tel. Co.....	80 00	
Traveling expenses—J. A. Sladky.....	6 00	
Two books—B. Westermann & Co.....	16 40	
Subscription to Berkeleyan—J. H. Schutte.....	2 00	
Telegram from eclipse station—Pacific Postal Telegraph Co.....	3 64	
Telephone message—Sunset Tel. Tel. Co.....	80	
Telegrams regarding comet—Western Union Telegraph Co.....	2 00	
One thousand sheets paper—Cunningham, Curtiss & Welch.....	10 00	
One dozen Globe indexes—Payot, Upham & Co.....	3 60	
One dozen transfer cases—Payot, Upham & Co.....	4 20	
Case, etc.—Payot, Upham & Co.....	35	
Freight on eclipse instruments—J. E. Keeler.....	50 19	
Cutting thirty-one and one half cords wood—H. C. Brown.....	63 00	
Cutting ten and one half cords wood—H. C. Brown.....	21 00	
Ten gallons machine oil—Whittier, Fuller & Co.....	6 50	
Three diaphragms—Thomas A. Upham.....	1 25	
Cutting twenty-seven cords wood—H. C. Brown.....	54 00	
Cutting eighteen and one half cords wood—Hugh Kennedy.....	36 50	
Furnishing four cords wood—J. R. Kincaid.....	24 00	
Cutting ten and one half cords wood—Hugh Kennedy.....	21 00	
		\$5,136 93
Salaries for the year ending June 30, 1889.....		10,684 19
<i>To University Site Improvements.</i>		
Labor, as per July payroll.....	\$313 00	
Eight new shoes—H. McCaskell.....	4 00	
Taking to Berkeley, painting and putting in place, complete, flagstaff—Simmons & Meyers.....	250 00	
Three bent garden valves—Dunham, Carrigan & Hayden Co.....	3 60	
Three water pots, four and one half gallons—Dunham, Carrigan & Hayden Co.....	5 00	
One half dozen 8-inch socket hoes—Dunham, Carrigan & Hay- den Co.....	\$4 50	
Less 50 per cent.....	2 25	
		2 25
One valve for No. 3 Smith patented—Dunham, Carrigan & Hay- den Co.....		2 25
One half dozen flat files—Dunham, Carrigan & Hayden Co.....	\$1 70	
One half dozen slim taper files—Dunham, Carrigan & Hayden Co.....	1 20	
	\$2 90	
Less 50 per cent.....	1 45	
		1 45
Sharpening two picks—D. H. Frye.....	40	
Sharpening two picks—D. H. Frye.....	40	
Ten gallons pure lard oil—Whittier, Fuller & Co.....	8 00	
One hundred and twenty-five feet manilla rope—Dunham, Car- rigan & Hayden Co.....	5 27	
Labor, as per August payroll.....	331 00	
Expressage three pots, one bundle tools—Patterson & Co.....	1 00	
One 1-inch hose washer—Pierce & Co.....	50	
One gallon lard oil—Joseph McClain.....	1 50	
One and three quarters pounds solder—Dunham, Carrigan & Hayden Co.....	27	
One 3-inch ladle—Dunham, Carrigan & Hayden Co.....	25	
One 1-inch globe valve—Dunham, Carrigan & Hayden Co.....	85	
Labor, as per September payroll.....	280 20	
Twenty-six sacks barley—B. E. Hickok & Son.....	20 10	
Seventeen sacks bran—B. E. Hickok & Son.....	9 10	
Rope and baling sixteen tons hay—R. Moore.....	36 00	
Two spools copper wire—J. W. Savage.....	30	
Repairing scythe—D. H. Frye.....	50	
Two wooden screws—D. H. Frye.....	75	
Sharpening picks and bar—D. H. Frye.....	50	
Repairing mower—D. H. Frye.....	3 00	
New piece in bar—D. H. Frye.....	1 50	
Two hundred pounds salt—Joseph McClain.....	2 60	
Sharpening pick—D. H. Frye.....	20	
Sharpening six pick points—D. H. Frye.....	60	

DISBURSEMENTS—Continued.

Sharpening three pick points—D. H. Frye	\$0 60
Sharpening two pick points—D. H. Frye	40
Four heavy bolts with nuts—D. H. Frye	2 00
Sharpening two pick points and steel on four pick points—D. H. Frye	1 15
Eight new shoes—Nelson & McLellan	4 00
Labor, as per October payroll	370 00
One hundred copies card notices—C. A. Murdock & Co.	7 50
Sharpening two pick points—D. H. Frye	20
Sharpening four pick points—D. H. Frye	40
Sharpening two pick points—D. H. Frye	20
Sharpening two pick points—D. H. Frye	20
Sharpening six pick points—D. H. Frye	60
Setting and sharpening shears—D. H. Frye	50
Six large bolts—D. H. Frye	1 50
Repairing hames—Nelson & McLellan	50
Eight new shoes—Nelson & McLellan	4 00
One cultivator tooth—Nelson & McLellan	1 00
One new bolster—Nelson & McLellan	4 00
Iron plate on top—Nelson & McLellan	75
Labor, as per November payroll	271 00
Labor, as per December payroll	279 00
Repairing one fork—Nelson & McLellan	35
Sharpening one plowshare—Nelson & McLellan	50
Six bolts—Nelson & McLellan	1 50
One half dozen Hurd's hdl. axes, 32x42—Huntington-Hopkins Co.	5 00
One dozen ex. 36-inch ax handles	2 75
Two links in chain—Nelson & McLellan	20
One bolster on wagon—Nelson & McLellan	3 50
One new stay chain—Nelson & McLellan	75
Two links in chain—Nelson & McLellan	20
Two picks sharpened—Nelson & McLellan	30
Ten sacks carrots—W. A. Rouse & Co.	4 25
Eight sacks rye grass—Thos. A. Cox & Co.	56 00
Thirteen sacks seed oats—Thos. A. Cox & Co.	20 95
One set lead bars—Nelson & McLellan	6 50
Two drills sharpened—Nelson & McLellan	25
One plowshare fitted—Nelson & McLellan	75
One plowshare sharpened—Nelson & McLellan	25
Eight new shoes—Nelson & McLellan	4 00
One share sharpened—Nelson & McLellan	25
Repairing plows and bolts—Nelson & McLellan	1 25
Labor, as per January payroll	276 00
Expressage on twenty-one sacks seed—Patterson & Co.	5 00
Expressage on thirteen sacks grain—Patterson & Co.	2 50
One book—A. B. Merrill	1 50
One clevis—Nelson & McLellan	35
One pointed share—Nelson & McLellan	50
One share sharpened—Nelson & McLellan	25
One nail rod and rep. machine—Nelson & McLellan	4 00
Sharpening plow shovel—Nelson & McLellan	50
Repairing mower—Nelson & McLellan	1 50
Repairing mower—Nelson & McLellan	1 50
Labor, as per February payroll	246 00
Labor, as per March payroll	270 50
Repairing lawn mower—Nelson & McLellan	75
Eight new shoes—Nelson & McLellan	4 00
Four 5-inch bolts—Nelson & McLellan	50
Advertisement for bids—"Morning Times"	2 65
Twenty pieces 3-inch sewer pipe—J. W. Savage	4 20
Advertisement for bids—"Tribune" Publishing Co.	5 25
Cutting grass and clearing grounds—J. J. Dunn	45 25
Hauling ten tons saltpeter—J. J. Dunn	12 00
Labor, as per April payroll	265 00
Repairing lawn mower—Nelson & McLellan	25
Repairing swantail (mower)—Nelson & McLellan	50
Splicing knife—Nelson & McLellan	1 00
Repairing mower—Nelson & McLellan	2 25
Repairing wrench—Nelson & McLellan	25
Splicing knife—Nelson & McLellan	75
One half dozen barrels—Joseph McClain	1 80
One bucket—Joseph McClain	25
Labor, as per May payroll	332 00

DISBURSEMENTS—Continued.

Eight new shoes—Nelson & McLellan.....	\$4 00	
Repairing mower—Nelson & McLellan.....	2 00	
Seventeen carloads of cinders—Southern Pacific Co.	51 00	
Twenty-six sacks rolled barley—B. E. Hickok & Son	17 47	
Thirteen sacks bran—B. E. Hickok & Son	7 43	
Two sacks oil meal—B. E. Hickok & Son	3 00	
Five thousand four hundred and forty-eight feet gutter—J. J. Dunn	1,471 46	
Excavating for gutter—J. J. Dunn	163 14	
Replacing macadam—J. J. Dunn.....	108 76	
Plowing, where needed—J. J. Dunn.....	10 00	
Three scythes—Congdon & Co.	2 25	
Three spading forks—Congdon & Co.	2 70	
Labor, as per June payroll.....	283 65	
Measuring gutter, etc.—W. G. Raymond.....	6 25	
		\$5,967 20
<i>To Water Supply.</i>		
Labor, as per July payroll.....	\$2 00	
Labor, as per August payroll.....	2 00	
Six pounds blk. fittings—E. F. Delger.....	90	
One 1-inch finished bibb.....	2 10	
Nine hundred and forty thousand nine hundred and ten gallons water—Alameda Water Co.	282 27	
Full abstract to property of H. A. Palmer.....	\$60 00	
Recording deed—G. L. Mix	2 50	
		62 50
Labor, as per September payroll.....	2 00	
Eleven and one half pounds fittings—Richard Chaloner.....	2 87	
Two bushings, 1½ to 1 inch—Richard Chaloner.....	50	
One nipple and socket—Richard Chaloner.....	55	
Labor, as per October payroll.....	2 00	
Water for month of September—Alameda Water Co.	12 80	
Water for month of October—Alameda Water Co.	18 96	
Insurance—Home Mutual Insurance Co.	18 00	
Putting in pipe—Robert T. Fearey.....	25 00	
New waterback for range—John G. IIs	5 00	
Bricks and fire clay used—John G. IIs	1 25	
Fittings—John G. IIs	50	
Railroad fares—John G. IIs	1 00	
Inspection by expert—John G. IIs	2 00	
Work by two men putting in waterback—John G. IIs.....	7 00	
New top for oven—John G. IIs	1 50	
One fourth day's time cleaning out pipe at range—R. D. Fearey.....	2 00	
Insurance—Oakland Home Insurance Co.	36 00	
Plastering kitchen ceiling—H. L. Whitney	10 00	
Water for September and October—Alameda Water Co.	4 36	
Painting in kitchen—Geo. D. Smith	1 50	
Repairing roof—A. H. Broad.....	3 50	
Water for December—Alameda Water Co.	9 40	
Water for January—Alameda Water Co.	6 57	
Taxes on property—C. E. Palmer.....	2 54	
Taxes on property—C. E. Palmer.....	2 03	
New waterback for range—John G. IIs.....	\$5 00	
New bricks and clay used—John G. IIs	1 25	
Work of two men putting in waterback—John G. IIs	7 00	
Fares of two men—John G. IIs.....	50	
		\$13 75
Less rebate.....	3 75	
		10 00
Recording deed—R. W. Church, County Recorder.....	2 00	
State and county taxes on property—C. E. Palmer.....	3 34	
State and county taxes on property—C. E. Palmer.....	1 65	
Water for February—Alameda Water Co.	18 93	
Land purchased from C. A. Bailey.....	4,500 00	
Water for March—Alameda Water Co.	31 05	
Labor, as per November payroll.....	2 00	
Labor, as per December payroll.....	2 00	
Labor, as per January payroll.....	2 00	
Labor, as per February payroll.....	2 00	
Labor, as per March payroll.....	2 00	
Labor, as per April payroll.....	2 00	
Labor, as per May payroll.....	2 00	

DISBURSEMENTS—Continued.

Water for May—Alameda Water Co.	\$149 86
Team for examining water supply—Berkeley Livery Stable	2 00
Labor, as per June payroll	2 00
Repairing waterback—John J. Menges	2 50
Repairs at Palmer House—J. W. McNamara	2 50
Repairs to sink at Palmer House—J. W. McNamara	14 70
Water for November—Alameda Water Co.	17 52
Advances by Louis Sloss, Treasurer	1,150 33
Galvanized wire cloth—California Wire Works	3 25
Water for April—Alameda Water Co.	107 52
	<hr/>
<i>To Equipment and Repairs.</i>	\$6,563 75
Two dozen Rising Sun stove polish—Dunham, Carrigan & Hayden Co.	\$1 40
Two dozen tacks, each 10-12-14—Dunham, Carrigan & Hayden Co.	\$6 60
One doz. tacks, 8-ounce—Dunham, Carrigan & Hayden Co.	80
	<hr/>
	\$7 40
Less 60 per cent	4 44
	<hr/>
Thirty-five yards body Brussels, sewed and laid—E. Hook	2 96
One marble-top table—E. Hook	52 50
One water pitcher—E. Hook	10 00
Two goblets—E. Hook	1 25
Expressage on two boxes—Patterson & Co.	1 00
Expressage on one table—Patterson & Co.	50
Expressage on one box glassware—Patterson & Co.	1 00
Expressage on one case, two cans oil—Patterson & Co.	50
One dozen hose couplings—Dunham, Carrigan & Hayden Co.	50
One sack charcoal—Dunham, Carrigan & Hayden Co.	1 05
One mortise lock—Dunham, Carrigan & Hayden Co.	80
One night latch—Dunham, Carrigan & Hayden Co.	75
One half dozen pair butts—Dunham, Carrigan & Hayden Co.	1 25
Two dozen sash lifts—Dunham, Carrigan & Hayden Co.	50
One pair steel hinges—Joseph McClain	70
One trip to San Francisco—Fred. Iddins	25
Cleaning one 8-day clock—John Frey	25
Polishing pivots, and two new bushes—John Frey	1 00
Eight and one half pounds twine—J. W. Savage	1,00
Four pieces 3-inch pipe—J. W. Savage	85
One piece 3-inch elbow—J. W. Savage	\$1 20
	50
	<hr/>
	\$1 70
Less 20 per cent	35
	<hr/>
One dozen bibb washers—E. F. Delger	1 35
Fourteen lights, 34 $\frac{1}{2}$ x22-16—Whittier, Fuller & Co.	50
Fourteen lights, 33x19 $\frac{1}{2}$ -16—Whittier, Fuller & Co.	11 34
Fourteen lights, 22x32-16—Whittier, Fuller & Co.	8 26
Seven lights, 13x28 $\frac{1}{2}$ -16—Whittier, Fuller & Co.	9 10
Sixty alabastine—Whittier, Fuller & Co.	2 59
One package No. 25 kalsomine—Whittier, Fuller & Co.	6 00
One package No. 43 kalsomine—Whittier, Fuller & Co.	64
One package No. 60 kalsomine—Whittier, Fuller & Co.	74
One package No. 64 kalsomine—Whittier, Fuller & Co.	78
One hundred pounds Pioneer white lead—Whittier, Fuller & Co.	72
One dozen pair brass desk butts—Huntington-Hopkins Co.	6 25
Two dozen pair iron parl. butts—Huntington-Hopkins Co.	50
Twenty-four pounds wire brads, 1 $\frac{1}{2}$ x15—Huntington-Hopkins Co.	1 00
Two pounds wire brads, $\frac{3}{8}$ x20—Huntington-Hopkins Co.	1 68
One dozen 6-inch light strap hinges—Huntington-Hopkins Co.	60
One dozen 4-inch light strap hinges—Huntington-Hopkins Co.	68
One dozen L. J. butts, L 84—Huntington-Hopkins Co.	48
One dozen L. J. butts, R 84—Huntington-Hopkins Co.	80
Six gross screws, 2 $\frac{1}{2}$ x10—Huntington-Hopkins Co.	80
Six gross screws, 2 $\frac{1}{2}$ x12—Huntington-Hopkins Co.	3 18
Six gross screws, 2 $\frac{1}{2}$ x16—Huntington-Hopkins Co.	5 42
One hundred and fifty pounds wire nails—Huntington-Hopkins Co.	4 62
One half ream sandpaper, No. 0—Huntington-Hopkins Co.	13 50
One half ream sandpaper, No. 2—Huntington-Hopkins Co.	2 00
	2 50

DISBURSEMENTS—Continued.

Two dozen key blanks—Huntington-Hopkins Co.	\$1 00
One half dozen stubs, 5-inch flat—Huntington-Hopkins Co.	1 20
Case for packing—Huntington-Hopkins Co.	25
Expressage on one bundle of rope—Patterson & Co.	50
Expressage on five cases of glass and hardware—Patterson & Co.	2 25
Repairing fire extinguisher—W. T. Garratt & Co.	3 35
Six yards leather gimp—W. & J. Sloane & Co.	30
One yard felt—W. & J. Sloane & Co.	1 25
Repairing door check—F. D. Morrell	2 50
Three dozen rodded chairs—Cal. Furniture Manufacturing Co.	63 00
Three hundred feet sugar pine—Henry W. Taylor	30 00
Three hundred feet surfaced pine—Henry W. Taylor	6 00
Three hundred feet surfaced redwood—Henry W. Taylor	6 00
Eight hundred feet double surfaced redwood—Henry W. Taylor	28 80
One thousand shingles—Henry W. Taylor	2 00
Three hundred laths—Henry W. Taylor	1 05
Three hundred feet double surfaced cedar—Henry W. Taylor	18 00
Five hundred feet double surfaced sugar pine—Henry W. Taylor	50 00
Five hundred feet clear spruce—Henry W. Taylor	16 50
Mill work—Henry W. Taylor	8 15
Two hundred and twelve and one third square yards cocoa matting—E. Hook	148 64
One hundred and seventy square yards cocoa matting—E. Hook	119 00
One hundred and ten square yards cocoa matting—E. Hook	77 00
No. 20 Bradford stove—M. De La Montanya	16 00
Four parts stove-pipe—M. De La Montanya	1 20
One 5½-inch elbow—M. De La Montanya	30
One damper—M. De La Montanya	25
One half sheet zinc—M. De La Montanya	75
Collars—M. De La Montanya	10
Labor and cartage—M. De La Montanya	1 50
Forty-eight gallons No. 3 P. & B. paint—Paraffine Paint Co.	43 20
One barrel refined asphaltum—N. C. Walton	16 00
Four thousand feet redwood lumber—H. W. Taylor	72 00
One pitcher—F. R. Stevenson & Co.	30
Three glasses—F. R. Stevenson & Co.	20
Making two stands of shelves—J. T. Baum	17 00
Making large table—J. T. Baum	5 00
One sack charcoal—J. K. Stewart	1 00
One Hack saw blade—Frank A. Davis	20
Fifteen pounds rope—J. K. Stewart	1 10
Two P. buckets—Joseph McClain	1 00
One half dozen tin cups—Joseph McClain	60
Extinguisher hose—J. W. Girvin & Co.	1 75
One Magic nozzle—H. P. Gregory & Co.	75
One coupling—H. P. Gregory & Co.	50
Forty-six square feet zinc—Jos. F. Forderer	5 06
One corrugated elbow—W. W. Montague & Co.	50
Two ladders, five feet—Armes & Dallam	3 50
One ladder, ten feet—Armes & Dallam	3 50
One gross screw hooks—Huntington-Hopkins Co.	75
One mortised night latch—Huntington-Hopkins Co.	2 00
One half dozen barrel bolts—Huntington-Hopkins Co.	95
One dozen drawer locks—Huntington-Hopkins Co.	3 50
Repairing plastering in North Hall, as follows:	
Two plasterers one day—H. L. Whitney	11 00
One laborer one day—H. L. Whitney	3 00
Materials, mortar, putty, etc.—H. L. Whitney	2 00
Repairs in South Hall, as follows:	
Two plasterers one day—H. L. Whitney	11 00
One laborer one day—H. L. Whitney	3 50
One laborer one day—H. L. Whitney	3 50
Two plasterers one day—H. L. Whitney	11 00
Plaster, putty, etc.—H. L. Whitney	2 50
One hundred and seventy-five feet cast plaster moldings—H. L. Whitney	17 50
Concrete floor, pier of bricks, capped with stone slab—H. L. Whitney	50 00
Cementing walls (outside North Hall)—H. L. Whitney	45 00
Plastering ceiling of boiler-room in Library—H. L. Whitney	15 00
Whitening Prof. Greene's room—W. T. Lingard	18 00
Staining one box in Prof. Putzker's room—W. T. Lingard	50
Staining one box in Dean's office—W. T. Lingard	50

DISBURSEMENTS—Continued.

Painting base in Prof. Cook's room—W. T. Lingard	\$0 50
Varnishing casing in Recorder's office—W. T. Lingard	50
Seven hundred feet T. and G. pine—Henry W. Taylor	21 70
Thirty-eight feet pine—Henry W. Taylor	1 76
Seventy-two feet pine—Henry W. Taylor	
One thousand and fifty feet T. and G. redwood—Henry W. Taylor	34 65
One hundred and fifty feet $\frac{1}{4}$ redwood—Henry W. Taylor	1 45
One thousand and fifty feet T. and G. redwood—Henry W. Taylor	34 65
One walnut desk—Niehaus Bros. & Co.	125 00
Cedar molding—Niehaus Bros. & Co.	1 50
One inside window blind—Niehaus Bros. & Co.	6 50
Eleven pieces dressed lumber—Niehaus Bros. & Co.	5 00
Fifty feet molding—Niehaus Bros. & Co.	2 25
Thirty-six rodded chairs—California Furniture Mfg. Co.	63 00
Ten antique rockers—California Furniture Manufacturing Co.	30 00
One antique desk—California Furniture Manufacturing Co.	25 00
Making twenty-four sets ax holders—W. T. Garratt & Co.	18 00
Ten feet 2-inch cast-iron pipe—John J. Menges	2 50
Four feet 2-inch cast-iron tees—John J. Menges	3 00
Two 2-inch cast-iron hubs—John J. Menges	60
One 2-inch ell—John J. Menges	75
Three 2-inch brass ferrules—John J. Menges	90
One 2-inch plug—John J. Menges	25
Two 3-inch brass strainers—John J. Menges	50
Washers for bibbs—John J. Menges	25
Two feet 6-inch lead pipe—John J. Menges	1 25
Eight pounds solder—John J. Menges	1 60
Twenty pounds calking lead—John J. Menges	1 20
Plaster of Paris, cement, etc.—John J. Menges	25
Three days' labor—John J. Menges	21 00
Repairing closet in North Hall—John J. Menges	2 00
Furnishing and putting up gas fixtures in Physical Laboratory—John J. Menges	16 00
Plumbing and gasfitting on desk in Chemical Laboratory—John J. Menges	27 00
Cleaning and whitening Chemical Laboratory—W. T. Lingard	35 00
Furnishing and setting nineteen lights glass—W. T. Lingard	18 00
Painting nine sets inside blinds—W. T. Lingard	38 00
One Brussels rug—Frank G. Edwards	16 00
One brush mat—Frank G. Edwards	2 00
Thirty-eight and one half yards Napier matting—F. G. Edwards	30 80
Binding two ends—Frank G. Edwards	1 50
One 8-foot white cedar bookcase—J. T. Baum	45 00
Expressage on sixty-two chairs, ten rockers—Patterson & Co.	12 00
Expressage on two bundles axes—Patterson & Co.	50
Expressage on one desk, one package—Patterson & Co.	2 00
Expressage on one desk—Patterson & Co.	1 75
Expressage on one chair—Patterson & Co.	50
Expressage on two bales carpet—Patterson & Co.	1 25
Expressage on one desk—Patterson & Co.	2 00
Expressage on materials for laboratory—Patterson & Co.	1 25
Expressage on dumb-bells—Patterson & Co.	50
Expressage on four hundred pounds asphaltum—Patterson & Co.	2 50
Expressage on three stepladders—Patterson & Co.	75
Expressage on one barrel tar and hardware—Patterson & Co.	3 00
Putting up gas fixtures in Prof. Edwards' room—John J. Menges	7 00
Four hundred pounds asphaltum—R. A. Kershaw	4 00
Two barrels coal tar—Oakland Gas Co.	10 00
Four dozen Climax erasers—Payot, Upham & Co.	6 00
One dozen galvanized buckets—W. W. Montague & Co.	4 20
One dozen pairs 6x8 brackets—Huntington-Hopkins Co.	1 50
One gross 1x8 screws—Huntington-Hopkins Co.	25
One office chair—F. S. Chadbourne & Co.	8 00
One slate board and boxing—A. J. LaBar	4 93
Carpenter work on Gymnasium—Henry Parker	35 00
One blower stand for Recorder's office—E. F. Delger	80
One tin pan for Recorder's office—E. F. Delger	30
One piece of zinc—John J. Menges	75
Extra work on Gymnasium—E. A. Sawyer	2 00
One piece for Challenge paper cutter—Tatum & Bowen	3 00
One Yale padlock—Huntington-Hopkins Co.	60
One sheet narrow zinc—John J. Menges	1 25
Three pairs thumb latches—W. & M. Everson	75

DISBURSEMENTS—Continued.

One quire ledger paper—J. J. Evans	\$1 00
Eighty-eight flashings—John J. Menges	1 32
Twelve feet valley tin—John J. Menges	1 20
One dozen drawer locks—Hawley Bros. Hardware Co.	3 75
One leather cushion—California Furniture Mfg. Co.	\$3 50
Less 5 per cent	20
One black fire set—California Gas Fixture Co.	3 30
One dozen desk butts—J. W. Savage	4 50
One gross screws—J. W. Savage	60
Two dozen brass screws—J. W. Savage	20
One 6-inch elbow—W. W. Montague & Co.	05
One dozen Yale latches—Huntington-Hopkins Co.	35
Two cupd. locks—Huntington-Hopkins Co.	21 00
One half dozen No. 3 brass keys—Huntington-Hopkins Co.	10 00
One dozen No. 411 street keys—Huntington-Hopkins Co.	50
One half dozen No. 408 street keys—Huntington-Hopkins Co.	1 50
One dozen No. 412 street keys—Huntington-Hopkins Co.	75
Twelve feet office rail redwood—Niehaus Bros. & Co.	1 50
Twenty balusters and one post—Niehaus Bros. & Co.	7 00
Four drawing cases—Möller & Sass	225 00
Sixteen glass doors—Möller & Sass	
Six sets panel doors—Möller & Sass	
Forty-eight pieces surfaced redwood—Henry W. Taylor.	\$36 15
Less	15
Architect's commission on changes in fourth story of Mechanic Arts building—Clinton Day	36 00
Alterations in fourth story of Mechanic Arts building—John Spencer	43 50
Three dozen cupd. locks—Dunham, Carrigan & Hayden Co.	870 00
Three dozen pair iron butts—Dunham, Carrigan & Hayden Co.	16 88
Four gross screws—Dunham, Carrigan & Hayden Co.	98
Two lights, 15x36, in Gymnasium—W. T. Lingard	63
Six lights, 15x18, in Gymnasium—W. T. Lingard	2 25
Frosting forty windows in Gymnasium—W. T. Lingard	3 60
Three hand saws—Pierce & Co.	16 00
One hand saw—Pierce & Co.	4 50
One one-man saw—Pierce & Co.	2 25
Three fourths dozen files—Pierce & Co.	2 25
Six 6-foot rollers—Niehaus Bros. & Co.	1 25
Nine key blanks—Harris, Oswald & Noble	3 00
Three key blanks—J. Todt	25
One half dozen store door locks—Huntington-Hopkins Co.	25
Four pounds shellac—Whittier, Fuller & Co.	10 00
Ten pounds white shellac—Whittier, Fuller & Co.	1 00
One gallon alcohol—Whittier, Fuller & Co.	3 00
One and one half yards velvet—Taft & Pennoyer	2 65
Two brass bolts—W. & M. Everson	2 25
One gas-fixture hook—J. W. Savage	90
One mortise lock—J. W. Savage	20
Eight screws, long—J. W. Savage	45
Splicing seven screws—W. McIntosh	40
One 48-drawer U. S. Document Cabinet, with lock and casters—Bassett, Slein & Co.	1 00
Repairing water-closet and tank in Gymnasium building—Richard Chaloner	121 50
Material and labor repairing waste pipes and cocks in Chemical Department—Richard Chaloner	6 30
Six log bolts—Dunham, Carrigan & Hayden Co.	13 20
One bead plane—Dunham, Carrigan & Hayden Co.	15
One brass-top fender—California Wire Works	50
Dish for stove—Dalziel & Moller	4 15
One dozen round vents—Vulcan Iron Works	25
Thirty-six feet railing—Niehaus Bros. & Co.	4 00
Two hundred pounds Portland cement—J. W. Savage	2 16
One red rubber stamp—C. A. Klinkner & Co.	2 00
Mounted map of Ancient Italy—B. Westermann & Co.	2 50
Mounted map of Ancient Greece—B. Westermann & Co.	5 25
Mounted map of Ancient Rome—B. Westermann & Co.	6 00
Mounted map of Ancient Gaul—B. Westermann & Co.	4 50
Mounted map of Ancient Asia Minor—B. Westermann & Co.	6 00
Six adjustable-topped, three-legged tables—J. Baum	5 25
	36 00

DISBURSEMENTS—Continued.

One plate-glass window, 30x80—S. Wakeham	\$30 00
Twenty sacks sawdust—George C. Pape	3 00
One dozen drawer pulls—Pierce & Co.	65
Nine white window shades—E. Hook	13 50
Keeping flag in order—A. Edgar	6 00
Cleaning pipes and repairing faucets—J. M. McNamara	7 50
Repairing boiler pipes in cottage—J. M. McNamara	3 85
Two copies San Francisco Directory—W. H. L. Corran	10 00
One hundred and sixty-five yards cocoa matting—E. Hook	115 50
Repairing plastering in library—H. L. Whitney	6 00
Repairing closets, sinks, and drains—J. M. McNamara	22 00
Repairing tanks and valve—J. M. McNamara	8 00
Twelve white cedar drawing tables—John Coop	270 00
One dozen brass drawer locks—Osborn & Alexander	6 00
Four dozen perforated seats—California Furniture Mfg. Co.	10 08
Repairing electric bell—Pacific Electrical Works	4 00
One 1-inch comp. bibb—Dalziel & Moller	1 75
Insurance on books—Canton Insurance Co.	83
One Yale dead lock—Frank P. Latson	4 00
One rabbeted lock—Hawley Bros. Hardware Co.	2 50
One dozen butts and screws—Hawley Bros. Hardware Co.	1 25
Three rubbers for closet—Holbrook, Merrill & Stetson	1 80
Three dozen coat hooks—W. & M. Everson	90
Three dozen oak screw stools—F. S. Chadbourne & Co.	108 00

\$4,067 16

To Library.

Binding sixty-one volumes—Hicks-Judd Co.	\$89 20
Expressage on one case books—Patterson & Co.	25
Expressage on four cases books—Patterson & Co.	1 00
Expressage on five cases books—Patterson & Co.	3 00
Expressage on one case books—Patterson & Co.	1 00
Expressage on one package books—Patterson & Co.	25
One and one half gallons fish glue—S. H. Frank & Co.	2 75
One map of Yuba County—E. M. Sleator	5 50
Freight on one case books—Southern Pacific Co.	9 00
One thousand postal cards—N. B. Byrne	10 00
One hundred 2-cent stamps—N. B. Byrne	2 00
Expressage on one case books—Patterson & Co.	1 75
Expressage on one package labels—Wells, Fargo & Co.	25
Expressage on one package—Wells, Fargo & Co.	25
Binding sixty-four volumes—Hicks-Judd Co.	68 11
Expressage on one case books—Patterson & Co.	1 00
Expressage on one case tinware—Patterson & Co.	50
Freight on one case tinware—Southern Pacific Co.	5 93
Lumber for shelves—Niehaus Bros. & Co.	5 00
One thousand label holders—Library Bureau	\$100 00
Forty-eight book supports—Library Bureau	8 64
Packing case—Library Bureau	75

\$109 39

Less 10 per cent

10 93

98 46

Binding sixteen volumes—Hicks-Judd Co.	23 40
Repairing one book—Hicks-Judd Co.	50
Six hundred 1-cent stamps—N. B. Byrne	6 00
Four hundred 2-cent stamps—N. B. Byrne	8 00
One hundred and seventeen 4-cent stamps—N. B. Byrne	4 68
One 2-cent stamp—N. B. Byrne	02
Expressage on one case books—Patterson & Co.	1 00
Expressage on two cases books—Patterson & Co.	1 50
Expressage on one dozen buckets—Patterson & Co.	50
Expressage on one case books—Patterson & Co.	1 25
Expressage on one case books—Patterson & Co.	1 00
Expressage on one case books—Patterson & Co.	1 00
Expressage on two cases books—Patterson & Co.	1 00
Volume XVIII American Philological Association—J. H. Wright	2 00
Volume VIII Astronomical Journal—B. A. Gould	5 00
Advanced charges—U. S. Express Co.	65
Expressage on one box—Wells, Fargo & Co.	2 15
Expressage on one package—Wells, Fargo & Co.	40
Expressage on one package—Wells, Fargo & Co.	1 45
Expressage on one package—Patterson & Co.	30
One set Martin's casters—Maxwell & Pearce	1 00

DISBURSEMENTS—Continued.

Expressage (advanced charges)—Wells, Fargo & Co.	\$5 80
Expressage on one package—Wells, Fargo & Co.	6 80
Four hundred pieces redwood—Niehaus Bros. & Co.	8 00
Periodicals—H. Welter.	9 25
Subscription to following periodicals for one year—Kenyon News Agency:	
American Agriculturist	\$1 10
American Analyst	75
American Chemical Journal	3 40
American Engineer	1 50
American Geologist	3 15
American Journal of Archæology	4 70
American Journal of Mathematics	4 40
American Microscopical Journal	1 00
American Journal Philology	2 50
American Journal Pharmacy	2 60
American Journal Psychology	4 25
American Meteorological Journal	1 90
American Naturalist	3 75
American Society of Civil Engineers Transactions	9 00
Agriculturist Science	2 50
Atlantic Monthly	3 35
Botanical Gazette	1 90
Bulletin Torrey Botanical Club	1 00
Century Magazine	3 60
Columbia School of Mines	1 65
Cultivator and Country Gentleman	1 65
Education, Boston	2 40
Electrical World	2 60
Engineering and Mining Journal	3 25
Forum	4 25
Garden and Forest	3 25
Johns Hopkins University Studies and Historical Science	2 60
Journal of Association of Engineering Societies	2 70
Journal Franklin Institute	4 25
Journal of Morphology	7 75
Journal of Physiology	2 40
Journal of Speculative Philosophy	2 50
Library Journal	5 00
Library Notes, Boston	1 00
Modern Language	1 45
Nation	2 85
New Englander	2 85
New England and General Register	2 85
North American Review	4 25
Political Science Quarterly	2 65
Popular Science Monthly	4 25
Princeton Review	2 60
Publisher's Weekly	3 20
Railroad and Engineering Journal	2 65
Railroad Gazette	4 00
Quarterly Journal of Economics	1 70
Sanitary Engineer	4 00
Science	3 00
Scientific American and Supplement	6 00
Scribner's Magazine	2 60
Sidereal Messenger	1 90
Southern Cultivator	90
Art Journal	4 75
Academy	3 50
Athenæum	3 50
Chemical News	4 25
Dublin Review	5 50
Economist	10 00
Engineer	8 25
Engineering	8 25
Electrical Review	4 50
English Historical Review	4 35
English Illustrated Magazine	1 50
Geological Magazine	4 40
Iron, Thin Paper	7 00
Journal of Anatomy and Physiology	5 35

DISBURSEMENTS—Continued.

Journal of Philology.....	\$2 40	
Longman's Magazine.....	1 75	
Macmillan's Magazine.....	2 65	
Nature.....	5 50	
Notes and Queries, monthly edition.....	4 65	
Observatory.....	3 00	
Philosophical Magazine.....	8 25	
Saturday Review.....	6 70	
Spectator, weekly.....	6 85	
Temple Bar.....	3 00	
Quarterly Index.....	1 00	
	\$278 15	
Less overcharge Publisher's Weekly.....	\$0 20	
Less discontinuance Journal Specific Philo-		
sophy.....	2 50	
Less cancellation Princeton Review.....	2 60	
	3 50	
		\$272 85
Subscriptions to the following periodicals for year 1889—Charles S. Greene:		
Critic.....	\$2 55	
Harper's Monthly.....	3 15	
Magazine of American History.....	4 25	
Mining and Scientific Press.....	2 40	
Pacific Rural Press.....	2 40	
Overland Monthly.....	3 20	
Blackwood.....	2 99	
Contemporary Review.....	3 83	
Edinburgh Review.....	2 99	
Fortnightly Review.....	3 83	
Nineteenth Century.....	3 83	
Quarterly Review.....	2 99	
Scottish Review.....	2 99	
Westminster Review.....	3 65	
		45 05
Binding library catalogue—Hicks-Judd Co.....	2 50	
Binding one hundred and one volumes—Hicks-Judd Co.....	94 30	
Binding four volumes "Education"—Hicks-Judd Co.....	3 60	
Binding one hundred and three volumes—Hicks-Judd Co.....	90 20	
Expressage on one package—Patterson & Co.....	25	
Expressage on two cases books—Patterson & Co.....	1 25	
Expressage on one package—Patterson & Co.....	25	
Expressage on one case books—Patterson & Co.....	1 25	
Journal American Oriental Society.....	1 99	
Proceedings of Academy of Natural Sciences.....	5 00	
Postage on fifteen volumes from London.....	1 46	
Periodicals from Mayer & Müller.....	180 03	
Expressage on one case books—Patterson & Co.....	1 00	
Periodicals from H. Wilter.....	168 84	
Fifty 10-cent stamps—N. B. Byrne.....	5 00	
Eighty 5-cent stamps—N. B. Byrne.....	4 00	
Two hundred and fifty 2-cent stamps—N. B. Byrne.....	5 00	
One hundred 1-cent stamps—N. B. Byrne.....	1 00	
Five joints 10-inch stove-pipe—Holbrook, Merrill & Stetson.....	5 00	
One joint 10-inch T joint—Holbrook, Merrill & Stetson.....	1 50	
Expressage on one package—Wells, Fargo & Co.....	1 25	
Expressage on two cases books—Patterson & Co.....	2 00	
Periodicals from B. F. Stevens.....	128 68	
Binding one hundred seventy-seven volumes—Hicks-Judd Co.....	171 83	
Freight on one case books—Southern Pacific Co.....	9 87	
Expressage on three cases and one package—Patterson & Co.....	2 50	
"Authors' Weekly"—R. R. Bowker.....	1 00	
Books from H. Welter.....	3 42	
One pair shears—Maxwell & Pearce.....	1 50	
Expressage on one case books—Patterson & Co.....	75	
		\$1,610 97
Salaries for the year ending June 30, 1889.....		2,400 00
<i>To Department of Physical Culture.</i>		
One steel tape—Justinian Caire.....	\$1 75	
One glass tube—Justinian Caire.....	3 00	

DISBURSEMENTS—Continued.

One pneumatic trough—Justinian Caire	\$6 50
Five pairs 1-pound clubs—Isaac Hardenburgh	5 00
Five pairs 2-pound clubs—Isaac Hardenburgh	5 00
Ten pairs 3-pound clubs—Isaac Hardenburgh	15 00
Ten pairs 4-pound clubs—Isaac Hardenburgh	15 00
Forty pairs dumbbells—Isaac Hardenburgh	20 00
Three hundred card registers printed—C. A. Murdock & Co.	6 50
Permanent seats on grand stand—A. H. Broad	60 00
Additional seats for five hundred people—A. H. Broad	104 00
Two hundred and forty feet of fence—A. H. Broad	27 00
One office desk—California Furniture Manufacturing Co.	25 00
One office desk—California Furniture Manufacturing Co.	25 00
One thousand copies measurement tables—C. A. Murdock & Co.	40 00
Expressage on two sacks clubs, two sacks dumbbells—Patterson & Co.	1 00
Expressage on three sacks dumbbells—Patterson & Co.	75
Forty pairs dumbbells—Vulcan Iron Works	9 00
One leather horse—George Siess	45 00
One pair parallel bars—George Siess	30 00
One pair chest bars—George Siess	12 00
One mattress—George Siess	50 00
One pneumatic rowing machine—Will & Finck	17 50
Two inflated striking bags—Will & Finck	12 00
Expressage on one package—Patterson & Co.	25
Expressage on one case—Patterson & Co.	50
Expressage on six cases, three crates—Patterson & Co.	3 00
Expressage on two sacks dumbbells—Patterson & Co.	50
Books on physical culture—G. E. Stechert	4 23
Twenty pairs dumbbells—Vulcan Iron Works	9 00
Ten cases goods; freight—Southern Pacific Co.	57 91
One dozen tambourines—Sherman, Clay & Co.	2 75
Expressage on mattress, horse, etc.—Whitney & Co.	7 50
Two dozen time books—Payot, Upham & Co.	2 50
Expressage on one stand, one box—Patterson & Co.	75
Advances on gymnasium apparatus—Patterson & Co.	4 20
Nine sets chest weights—D. A. Sargent	\$108 00
One set traveling parallels—D. A. Sargent	30 00
One set wall parallels—D. A. Sargent	20 00
One finger machine—D. A. Sargent	15 00
One wrestling machine—D. A. Sargent	21 00
One wrist machine—D. A. Sargent	22 00
One long inclined plane—D. A. Sargent	50 00
One back dynamometer—D. A. Sargent	30 00
One hand dynamometer—D. A. Sargent	15 00
	\$311 00
Less	6 05
	304 94
Printing one thousand blanks for students—C. A. Murdock & Co.	9 00
One mirror—Davis Bros.	3 00
One gross hat and coat hooks—Pierce & Co.	2 25
Sewing striking bag—J. Grubelstein	40
Two pairs gymnasium shoes—C. B. Wood	2 75
Expressage on goods—Wells, Fargo & Co.	6 05
One blotter book—H. S. Crocker & Co.	3 25
One memorandum book—H. S. Crocker & Co.	1 25
One steel tapeline—Justinian Caire	1 75
Clerical services of G. H. Fletcher	5 77
Fire screen—J. T. Baum	2 50
Two dozen wire hooks—A. Erlandsen	50
Brass hooks—A. Erlandsen	25
Brass nails—A. Erlandsen	15
Tack hammer—A. Erlandsen	10
Clerical services of J. A. Brewer	6 30
Twenty-five pairs Indian clubs—Will & Finck	12 50
Expressage on twelve pieces castings—Patterson & Co.	50
Expressage on one mirror—Patterson & Co.	35
Six pairs brackets—Pierce & Co.	1 15
Expressage on one case apparatus—Patterson & Co.	50
Wood, Athletic Sports—G. E. Stechert	53
Athletic Sports—G. E. Stechert	13
One hickory bar—D. A. Sargent	12 00
Eight sets chest weights—D. A. Sargent	136 00

DISBURSEMENTS—Continued.

One mattress—H. Geiss	\$28 00
Expressage on one mattress—Patterson & Co.	1 50
Expressage on one case apparatus—Patterson & Co.	50
Expressage on six cases, two packages—Patterson & Co.	2 00
Freight on two cases hardware—Southern Pacific Co.	5 29
Freight on six cases apparatus—Southern Pacific Co.	19 90
One gallon sperm oil—Congdon & Co.	1 50
One brass oiler—Congdon & Co.	50
Repairing clock—R. W. Edwards	2 15
Assorted files—Pierce & Co.	1 50
One load screened sand—R. Moore	2 00
One horizontal suspended bar—Crisman, Brown & Co.	55 00
Making two mattresses—H. Geiss	38 00
Repairing swinging rings—H. Geiss	4 00
One home trainer—Osborn & Alexander	35 00
Repairing two leather bags—H. N. Cook	2 00
One fourth dozen rubber bags—H. N. Cook	4 50
Expressage on two mattresses—Patterson & Co.	4 00
Expressage on one box—Patterson & Co.	25
Maclaren, Training—Gustav E. Stechert	2 50
Wood, Physical Exercise—Gustav E. Stechert	1 50
Salaries for year ending June 30, 1889	\$1,354 31
	1,904 82

To College of Mines.

Two hundred and five cupels—Justinian Caire	\$4 10
Five hundred and forty-five crucibles—Justinian Caire	25 89
One hundred pounds litharge—Justinian Caire	8 00
Pure silica—Justinian Caire	75
Roasting dishes—Justinian Caire	2 00
Gas—Oakland Gas, Light, and Heat Co.	30 11
Fees on affidavit	50
Expressage on amalgamating machine—Patterson & Co.	1 00
Freight on wood—Southern Pacific Co.	4 13
One pair Krom's patent rolls—Stephen R. Krom	500 00
Packing and cartage—Stephen R. Krom	12 00
One roll detail paper—H. S. Crocker & Co.	4 42
One roll drawing paper—H. S. Crocker & Co.	7 80
Two rolls sun paper—H. S. Crocker & Co.	5 00
One roll 40-inch sun paper—H. S. Crocker & Co.	3 60
One 6-inch ebony triangle—H. S. Crocker & Co.	45
One 7-inch ebony triangle—H. S. Crocker & Co.	54
One 6-inch ebony triangle—H. S. Crocker & Co.	54
One 7-inch ebony triangle—H. S. Crocker & Co.	63
One set inks—H. S. Crocker & Co.	2 02
Sixty sacks English coke—Shaw & Sharp	59 00
Expressage on one case oil—Patterson & Co.	25
Expressage on six thousand seven hundred and eighty pounds coke—Patterson & Co.	13 00
Expressage on nine pieces machinery—Patterson & Co.	5 00
Gas for November—Oakland Gas Co.	3 12
Forging bolts—W. McIntosh	1 50
One 48-inch T square—Edward Denny & Co.	2 25
Two and one half yards paragon—Edward Denny & Co.	70
Expressage on three shaft hangers—Patterson & Co.	75
Gas for December—Oakland Gas Co.	3 60
Labor as fireman, one quarter month—Frank Mueller	12 50
Expressage on one case tinware—Patterson & Co.	50
Gas for February—Oakland Gas Co.	2 50
Forging six steel keys—W. McIntosh	1 50
Thirteen and one half feet black pipe—John J. Menges	81
One 1-inch ell—John Menges	10
One $\frac{3}{4}$ -inch plug and tee—John J. Menges	15
Three $\frac{3}{4}$ -inch nipples—John J. Menges	24
One $\frac{3}{4}$ -inch union—John J. Menges	20
Gas for March—Oakland Gas Co.	8 55
Expressage on one box acid—Patterson & Co.	25
Expressage on one box from railroad—Patterson & Co.	50
Expressage on hardware—Patterson & Co.	1 50
Expressage on ten cases machinery—Patterson & Co.	3 50
Expressage on sixteen sacks ore—Patterson & Co.	2 00
Expressage on hardware, glass, etc.—Patterson & Co.	4 00

DISBURSEMENTS—Continued.

Expressage on one package rods—Patterson & Co.	\$0 25
Expressage on one tank petroleum—Patterson & Co.	3 50
Expressage on one case gasoline, castings, etc.—Patterson & Co.	4 00
Gas for April—Oakland Gas Co.	14 85
Twenty-five packages matches—Joseph McClain	1 00
Expressage on one wrench—Patterson & Co.	35
Expressage on one box glass—Patterson & Co.	50
Gas for May—Oakland Gas Co.	22 55
Expressage on two cases crucibles—Patterson & Co.	1 25
Expressage on three sheets iron—Patterson & Co.	1 00
	<hr/>
Salaries for the year ending June 30, 1889	\$790 70
	7,748 00

The University Printing Office.

Expressage	\$27 70
Type	321 06
Tools	243 00
Paper	99 43
Ink	23 55
Miscellaneous	9 25
	<hr/>
Salaries for year ending June 30, 1889	723 59
	720 00

To College of Civil Engineering.

Expressage on two boxes, one package—Patterson & Co.	\$0 75
Expressage on one package—Patterson & Co.	25
Expressage on one box—Patterson & Co.	25
Assorted files—Pierce & Co.	2 00
Chamois skin—Greensfelder & Bettelheim	2 00
Zinc—E. F. Delger	4 00
Pipe—E. F. Delger	1 00
Expressage on two fenders—Patterson & Co.	50
Expressage on one package returned—Patterson & Co.	25
Repairing door to thermograph—California Electrical Works	30
Two trips to city and return—Carl Rabe	65
Expressage on two jars—Patterson & Co.	50
Filing two saws—Carl Rabe	40
Two railroad fares—Carl Rabe	10
One gross brass screws—Huntington-Hopkins Co.	1 50
One yard velvet—S. Jacobs & Son	1 00
Sheet wadding—S. Jacobs & Son	35
Elgin cloth—S. Jacobs & Son	20
One bottle treasury ink—H. S. Crocker & Co.	10
Two packages tacks—H. Rosekrans & Co.	10
Sixteen yards cord and two tassels—E. Hook	50
One half dozen shutter screws—Hawley Bros. Hardware Co.	15
One gross bands—W. B. Hardy	90
One half gross bands—W. B. Hardy	1 25
Two trips to city and return—Carl Rabe	50
One bill—Pierce & Co.	50
Two iron brackets—D. H. Frye	1 25
One case E. oil—Joseph McClain	3 30
One box candles—Joseph McClain	3 50
One Yale lock—Pierce & Co.	1 00
One hasp and staple—Pierce & Co.	20
One patent water strainer—Quade & Straut	2 50
One earthen crock—Quade & Straut	75
One 5-gallon demijohn—Quade & Straut	2 50
Expressage on two packages—Patterson & Co.	25
Expressage on six packages paper—Patterson & Co.	50
Expressage on one roll paper—Patterson & Co.	50
Expressage on one package—Patterson & Co.	25
Repairing sextant—A. Lietz & Co.	4 50
Picking locks and new keys—D. Siesbuttel	1 00
Assorted adjusting pins—Pacific Coast Electrical Co.	1 40
Pencils—Sanborn, Vail & Co.	1 00
One trip to San Francisco—Carl Rabe	30
One sextant—Col. R. H. Savage	25 00
One quart Stafford's universal ink—Dutton & Partridge	75
Six 250-page No. 10 records—Dutton & Partridge	5 40
One dozen No. 254 memoranda—Dutton & Partridge	5 00

DISBURSEMENTS—Continued.

Expressage on one package—Patterson & Co.	\$0 25
Expressage on one package—Patterson & Co.	25
Reading glass for barometer—A. Lietz & Co.	5 00
Mounting twelve large photos—W. W. Dames	5 00
Iron work for holding doors—Nelson & McLellan	8 00
Expressage on one package—Patterson & Co.	25
Repairing solar attachment—A. Lietz & Co.	4 50
One dozen adjusting pins—A. Lietz & Co.	1 50
Two screwdrivers—A. Lietz & Co.	1 00
Two cases E. oil—Joseph McClain	7 00
One gross parlor matches—Joseph McClain	2 50
Clerical services of W. E. Proctor	25 00
Four 10-pound cans chromic acid—California Electrical Works	10 00
Twelve carbons to order—California Electrical Works	2 40
Twelve zincs—California Electrical Works	3 00
Twelve zincs—California Electrical Works	3 00
Repairing cap—Dalziel & Moller	25
One return trip to Oakland—Carl Rabe	20
Three return trips to San Francisco—Carl Rabe	75
Three return trips to San Francisco—Carl Rabe	75
Two return trips to Oakland—Carl Rabe	40
New rod to thermometer—R. W. Edwards	50
Expressage from Washington—Wells, Fargo & Co.	40
Brick work and labor erecting stone pier—H. L. Whitney	20 00
Addition to roof shutter—Nelson & McLellan	2 00
Repairs to thermograph—E. L. Woods	10 00
Expressage on two boxes—Patterson & Co.	50
Expressage on one box—Patterson & Co.	25
One glass wedge—Fauth & Co.	7 50
Two dozen adjusting pins—Fauth & Co.	3 50
Subscription to "Sideral Messenger" for 1889—Wm. W. Payne	2 00
Two 3-quart agate pudding pans—W. W. Montague & Co.	70
One 21-quart agate dish pan—W. W. Montague & Co.	2 85
One 4-pint agate dipper—W. W. Montague & Co.	50
One agate funnel—W. W. Montague & Co.	40
Case—W. W. Montague & Co.	15
One pair rubber gloves—Hawley Bros. Hardware Co.	2 00
Three pounds mercury—Hawley Bros. Hardware Co.	2 40
One thousand brass tacks, one paper copper tacks—Hawley Bros. Hardware Co.	1 00
Two quires sandpaper—Hawley Bros. Hardware Co.	50
Services of W. E. Proctor	2 50
Two 3-quart pudding pans—W. W. Montague & Co.	70
Repairing recording thermometer—Dillon & Co.	75
One case from W. W. Montague & Co.—Berkeley Express	25
Twenty-two and one half pounds lead—Justinian Caire	1 35
One 2-candle-power lamp—California Electrical Works	1 50
Expressage on one box—Patterson & Co.	25
One 21-quart agate pan—W. W. Montague & Co.	2 00
One dipper and one funnel—W. W. Montague & Co.	1 05
Lead balance-weights—J. B. Jardine	5 00
One patent tellurian—The Bancroft Co.	\$25 00
One orrery, brass tripod—The Bancroft Co.	20 00
	\$45 00
Less 20 per cent	9 00
	36 00
Services making blue prints—W. E. Proctor	2 00
One thousand 1-cent stamps—N. B. Byrne	10 00
Fifty packages sal ammoniac—California Electrical Works	4 50
Expressage on two bundles weights—Patterson & Co.	50
Axes for practice work—W. G. Raymond	5 00
Ten yards conducting cord—California Electrical Works	2 00
	\$294 35
Salaries for the year ending June 30, 1889	10,509 00
<i>To Museum.</i>	
Expressage	\$17 25
Supplies	33 94
Specimens	126 58
Postage	10 00
Salaries for the year ending June 30, 1889	187 72
	1,200 00

DISBURSEMENTS—Continued.

To Department of Mineralogy.

Platinum foil—Justinian Caire.....	\$5 25	
Platinum chloride—Justinian Caire.....	3 00	
Two dozen reagent bottles—Justinian Caire.....	6 00	
One half grm. chloride caesium—Justinian Caire.....	3 25	
Five grm. thallium—Justinian Caire.....	1 25	
Two ounces nitrate silver—Justinian Caire.....	1 80	
Long handled tongs—Justinian Caire.....	2 00	
One dozen drawing pins—Justinian Caire.....	50	
	\$23 05	
Off on tongs.....	1 00	
	\$22 05	
Off on drawing pins.....	20	\$21 85
Eighteen connectors—California Electrical Works.....		2 70
One pound wire—California Electrical Works.....		50
Five connectors—California Electrical Works.....		1 00
One 2-point switch—California Electrical Works.....		60
One 1-point switch—California Electrical Works.....		50
Six binding posts—California Electrical Works.....		1 20
Three thousand cubic feet gas—Oakland Gas, Light, and Heat Co., and Heat Co.....		6 60
Two thousand one hundred cubic feet gas—Oakland Gas, Light, and Heat Co.....		4 64
Eight hundred cubic feet gas—Oakland Gas, Light, and Heat Co.....		2 20
One thousand one hundred cubic feet gas—Oakland Gas, Light, and Heat Co.....		3 05
Expressage on three boxes—Patterson & Co.....		1 00
Expressage on two boxes—Patterson & Co.....		50
One pivot stool in leather—Geo. H. Fuller.....		7 50
Three quires Munktell's paper—Justinian Caire.....		4 50
Five quires white com. paper—Justinian Caire.....		1 10
Twelve plain beakers—Justinian Caire.....		3 00
Two nests Bohemian beakers—Justinian Caire.....		3 00
One dozen 3-inch watch glasses—Justinian Caire.....		1 80
One half dozen 5-inch watch glasses—Justinian Caire.....		1 80
One half dozen 6-inch watch glasses—Justinian Caire.....		2 25
One pair scissors—Justinian Caire.....		75
Two dozen 6-inch test tubes—Justinian Caire.....		75
Two dozen 5-inch test tubes—Justinian Caire.....		75
Six 2-inch funnels—Justinian Caire.....		75
Six Hoffman clamps—Justinian Caire.....		2 40
Three pinch cocks—Justinian Caire.....		75
Two dozen plain tumblers—Justinian Caire.....		2 00
One platinum crucible—Justinian Caire.....		8 50
One platinum crucible—Justinian Caire.....		24 00
One retort clamp—Justinian Caire.....		1 50
Asbestos sheet—Justinian Caire.....		75
One apparatus—Justinian Caire.....		1 75
One silver crucible—Justinian Caire.....		4 50
One steel tape—Justinian Caire.....		1 75
One pair scissors—Justinian Caire.....		1 00
One half dozen files—Justinian Caire.....		75
One 6-cell battery—Justinian Caire.....		20 00
Four pounds chromic acid—Justinian Caire.....		1 85
Twelve excelsior crucibles—Justinian Caire.....		90
Twelve French crucibles—Justinian Caire.....		80
One machinist's hammer—Justinian Caire.....		75
Three evaporating dishes—Justinian Caire.....		1 50
Six pounds brass fastenings—Justinian Caire.....		1 80
One pulley—Justinian Caire.....		5 00
Microscopic slide—Justinian Caire.....		15 00
Expressage on two boxes—Patterson & Co.....		50
Expressage on one stool—Patterson & Co.....		50
One screw plug—D. H. Frye.....		25
One brass piece—W. T. Garratt & Co.....		60
Two 15-inch bolts—D. H. Frye.....		1 50
One hundred 1-cent stamps—N. B. Byrne.....		1 00
Expressage—Wells, Fargo & Co.....		1 15
Two hundred cubic feet gas—Oakland Gas Co.....		55
Eight hundred cubic feet gas—Oakland Gas Co.....		2 20

DISBURSEMENTS—Continued.

One mason's hammer—Abner Doble	\$3 20	
Four granite tools—Abner Doble	1 20	
Four small stone tools—Abner Doble	1 25	
One mason's hammer—Abner Doble	1 50	
One hand hammer—Abner Doble	1 50	
	\$8 65	
Less	65	\$8 00
One hundred and twenty-five carbons, 7x16—Justinian Caire		2 50
One 2-inch steel square—Justinian Caire		1 50
One 3-inch steel square—Justinian Caire		3 00
Two dozen plain bottles—Justinian Caire		1 00
Rubber tubing—Justinian Caire		1 50
Two hundred cubic feet gas—Oakland Gas Co.		55
Six granite points—Abner Doble		4 65
Four granite chisels—Abner Doble		
Six sandstone points—Abner Doble		3 00
Six sandstone chisels—Abner Doble		
Matches—Justinian Caire		50
Ten gallons gasoline—Justinian Caire		1 80
Hydrochloric acid—Justinian Caire		90
Five gallons coal oil—Justinian Caire		1 25
Two inkstands—Justinian Caire		2 50
Two mucilage bottles—Justinian Caire		
One dozen beakers—Justinian Caire		3 84
Four feet platinum wire—Justinian Caire		1 00
One hundred pounds emery—Justinian Caire		10 00
One quarter pound C. P. zinc—Justinian Caire		45
Four hundred 2-cent stamps—N. B. Byrne		8 00
Two hundred 1-cent stamps—N. B. Byrne		2 00
Expressage on five packages—Patterson & Co.		1 50
One hundred cubic feet gas—Oakland Gas Co.		30
One thousand two hundred cubic feet gas—Oakland Gas Co.		3 30
One hundred cubic feet gas—Oakland Gas Co.		30
Two hundred cubic feet gas—Oakland Gas Co.		55
Freight on one box granite—Southern Pacific Co.		3 95
Expressage on one box granite—Patterson & Co.		50
Expressage on two boxes—Patterson & Co.		50

\$248 63

To Department of Physics.

Four solenoids—California Electrical Works	\$24 00
Five sixteenths of a pound silk-covered German silver wire—James W. Queen & Co.	1 74
Two silver cups—Justinian Caire	3 35
One pound shellac—Justinian Caire	40
Two hundred assorted bung corks—Justinian Caire	1 70
Plaster of Paris—Justinian Caire	25
Lamp black—Justinian Caire	25
One pound steel wire—Justinian Caire	1 25
Three spools al. wire—Osborn & Alexander	30
Four spools soft brass wire—Osborn & Alexander	80
One spool soft brass wire—Osborn & Alexander	25
Three spools spring wire—Osborn & Alexander	60
One spool spring wire—Osborn & Alexander	25
Three spools copper wire—Osborn & Alexander	60
Two spools copper wire—Osborn & Alexander	50
Four spools hair wire—Osborn & Alexander	40
Two pair Fram. points—Osborn & Alexander	2 05
One half dozen flat mirrors—Electric Manufacturing Co.	4 50
One half dozen concave mirrors—Electric Manufacturing Co.	6 00
Postage—Electric Manufacturing Co.	14
Freight on one crate—Southern Pacific Co.	3 93
Shellacking and oiling seven tables; painting ceiling and partitions, etc.—S. Wakeham	18 00
Table, to order—A. J. Forbes & Son	35 00
Top to same—A. J. Forbes & Son	5 50
Seven tables, to order—Niehaus Bros. & Co.	65 50
One bifilar suspension—James W. Queen & Co.	40 00
One Jolly balance—James W. Queen & Co.	14 00
Four telephones—James W. Queen & Co.	11 40
Two reading microscopes—James W. Queen & Co.	19 00

DISBURSEMENTS—Continued.

One condenser—James W. Queen & Co.	\$78 00	
Boxing—James W. Queen & Co.	1 50	
One large extension bit—Osborn & Alexander.....	\$2 00	
One small extension bit—Osborn & Alexander.....	1 50	
One brad handle—Osborn & Alexander.....	60	
One countersink—Osborn & Alexander.....	50	
One prick punch—Osborn & Alexander.....	25	
	\$4 85	
Less 10 per cent	50	
	4 35	
Expressage paid—F. Slate	1 50	
One dust brush—Buchanan Bros.	75	
One set steel numbers—Osborn & Alexander.....	90	
Two alcohol lamps—Justinian Caire	50	
Expressage from Philadelphia—Wells, Fargo & Co.....	9 55	
Five spools thread—F. Slate	25	
One balance—Justinian Caire	\$35 00	
One set weights—Justinian Caire.....	12 00	
	\$47 00	
Less 15 per cent	7 05	
	39 95	
One dozen Meyer vapor apparatus—James W. Queen & Co.	17 40	
Three small boxes—James W. Queen & Co.	75	
		\$417 06
<i>To Fuel and Gas.</i>		
Coal—Fisher & Taylor.....	\$741 99	
Gas, January to December—Oakland Gas Co.	24 78	
		766 77
<i>To Stationery.</i>		
Supplies for Secretary's office	\$185 40	
Supplies for Land office.....	64 23	
Supplies for Recorder's office.....	30 00	
Supplies for President's office.....	12 00	
		291 63
<i>To Official and Lecturing Expenses.</i>		
Traveling expenses of Secretary.....	\$71 30	
Traveling expenses of Land Agent.....	12 00	
Traveling expenses of Professor Jones.....	198 65	
Traveling expenses of Professor Putzker.....	79 10	
Traveling expenses of Professor Clarke.....	49 80	
Traveling expenses of Professor Slate.....	16 00	
Traveling expenses of Professor Senger.....	8 10	
Traveling expenses of M. E. Letts.....	56 04	
Traveling expenses of Frederick Iddins.....	2 45	
Traveling expenses of E. A. Sawyer.....	75	
Traveling expenses of Professor Hesse.....	12 60	
Carriage hire and lunch.....	5 50	
Extra clerical services.....	183 80	
Traveling expenses of Professor Cook.....	41 30	
		737 39
<i>To College Celebrations.</i>		
Symbols of President's office.....	\$30 00	
Filling out diplomas.....	18 50	
Diplomas.....	150 00	
Carriage hire.....	28 00	
Lunches.....	8 00	
Supplies for celebration.....	75	
Music for commencement.....	85 00	
		320 25
<i>To Postage.</i>		
For Recorder's office.....	\$636 00	
For Secretary's office.....	120 00	
		756 00

DISBURSEMENTS—Continued.

<i>To Telegraphing and Expressage.</i>		
Telegrams—Western Union Telegraph Co.	\$3 72	
Expressage—Patterson & Co.	2 00	
Expressage—Wells, Fargo & Co.	4 10	
		\$9 82
<i>To Insurance.</i>		
On mortgages—J. C. Mitchell & Son	\$24 00	
On buildings, etc.—J. C. Mitchell & Son	7,303 75	
		7,327 75
To amount reserved for permanent improvements		15,000 00
		\$92,385 74

STATE APPROPRIATION (ONE-CENT FUND) FOR THE FISCAL YEAR ENDING
JUNE 30, 1890.

Statement of expenditures and receipts of the State University Fund, as directed in an Act of the Legislature of the State of California, entitled "An Act to provide for the permanent support and improvement of the University of California by the levy of a rate of taxation and the creation of a fund therefor," approved February 14, 1887.

RECEIPTS.		
October 31, 1889, by cash on Controller's warrant.....		\$9,353 04
April 24, 1890, by cash on Controller's warrant.....		91,852 85
		<hr/>
DISBURSEMENTS.		\$101,205 89
<i>To Department of Lick Observatory.</i>		
Rental of telephone for one year—Sunset Telephone Co.....		\$35 00
One Remington typewriter—G. G. Wickson & Co.....	\$100 00	
Less exchange of old typewriter.....	40 00	
		60 00
Ten cases Starlight oil—Goldberg, Bowen & Co.....		26 00
Freight on same—Goldberg, Bowen & Co.....		1 60
One 7-foot saw—Farmers Union.....		7 00
Thirteen-pound steel sledge—Farmers Union.....		1 30
Eight pounds steel wedges—Farmers Union.....		96
One sledge hammer—Farmers Union.....		25
One hand saw—Farmers Union.....		1 75
One rip saw—Farmers Union.....		2 00
Two screwdrivers—Farmers Union.....		45
Fifteen cans chloride of lime—Farmers Union.....		1 50
One half dozen brooms—Farmers Union.....		1 75
One half dozen mops—Farmers Union.....		2 13
Ten dozen castile soap—Farmers Union.....		1 20
One half dozen lantern globes—Farmers Union.....		75
One half dozen lamp shades—Farmers Union.....		2 40
One tack hammer—Farmers Union.....		50
One carpenter's hammer—Farmers Union.....		65
Three Mann's copybooks—Payot, Upham & Co.....		4 05
One half dozen ink wells—Payot, Upham & Co.....		45
One third dozen quarts violet ink—Payot, Upham & Co.....		1 67
One sixth dozen quarts Arabian ink—Payot, Upham & Co.....		1 67
One and one half reams legal paper—Payot, Upham & Co.....		2 81
One and one half reams letter paper—Payot, Upham & Co.....		2 25
One and one half reams note paper—Payot, Upham & Co.....		1 12
Fifteen cases Starlight oil—Goldberg, Bowen & Co.....		36 00
Freight on same—Goldberg, Bowen & Co.....		2 40
Thirty gallons machine oil—Whittier, Fuller & Co.....		16 50
Ten gallons pure sperm oil—Whittier, Fuller & Co.....		11 00
Cartage on same—Whittier, Fuller & Co.....		50
Flax packing—Union Iron Works.....		15 00
Waste packing—Union Iron Works.....		7 00
One observing lantern—H. A. Mathews.....		1 25
One half dozen bottles watch oil—H. A. Mathews.....		1 50
Thirteen tons hay—J. D. D. Bernal.....		195 00
Three thousand seven hundred and fifty pounds barley—Far. Un.....		30 00
Four hundred and eighty-five pounds bran—Farmers Union.....		4 00
Postage stamps—S. H. Wagener.....		50 00
Ten coils barbed wire—H. A. Mathews.....		10 00
Thirteen sheets galvanized iron—H. A. Mathews.....		15 00
Twenty dozen 8x10 seed plates—H. A. Mathews.....		48 00
One dozen 10x12 seed plates—H. A. Mathews.....		3 80
One dozen 11x14 seed plates—H. A. Mathews.....		5 00
Ten dozen 4x5 seed plates—H. A. Mathews.....		6 50
Ten dozen 3½x4½ Eastman plates—H. A. Mathews.....		6 50
One ounce nitric ammonia—H. A. Mathews.....		20
One ounce gum sandarac—H. A. Mathews.....		50
One pound chloroform—H. A. Mathews.....		65
One pound mittiate uranium—H. A. Mathews.....		85
Five ounces oil of lavender—H. A. Mathews.....		1 25
Nine bottles chloride gold—H. A. Mathews.....		5 00
One quart alcohol—H. A. Mathews.....		75

DISBURSEMENTS—Continued.

One ounce chloride ammonia—H. A. Mathews	\$0 20
One ounce sodium—H. A. Mathews	60
Gratings on silvered glass—E. S. Holden	15 00
One span sorrel mules—Ira Hageman	300 00
Twine and tacks—Farmers Union	95
One dozen papers tacks—H. A. Mathews	40
Five gallons alcohol—J. Archambeault	14 25
One barrel lime—J. Archambeault	2 00
Two pounds green paint—J. Archambeault	60
Ten pounds chloride lime—J. Archambeault	1 00
Fifty feet rain conductor—J. Archambeault	5 00
Eleven and one quarter feet belting—J. Archambeault	2 30
Three hose couplings and nipples—J. Archambeault	4 20
One and one half gross matches—J. Archambeault	2 50
Twenty packages toilet paper—J. Archambeault	2 50
Sixty-six feet white cedar—Santa Clara Valley Mill and Lum. Co.	5 25
One hundred and eighty paper boxes—A. Fleishhacker & Co.	11 25
One hundred sheets blotting paper—B. Westermann & Co.	8 00
Cutting and hauling wood—Hugh Kennedy	9 50
Cutting twenty cords wood—H. C. Brown	40 00
Cutting and hauling wood—H. C. Brown	63 00
Cutting and hauling wood—Hugh Kennedy	24 00
Cutting and hauling wood—H. C. Brown	12 00
Cutting thirteen and one half cords of wood—H. C. Brown	27 00
Cutting and hauling wood—H. C. Brown	58 50
Cutting and hauling wood—J. R. Kincaid	207 00
Cutting and hauling wood—H. C. Brown	30 00
Cutting and hauling wood—H. C. Brown	45 00
Four bullseye lanterns—H. A. Mathews	4 75
Labor setting up tanks—R. Fraser	10 00
Three hundred and thirty-three split pickets—Santa Clara Valley Lumber Co.	9 99
Repairing eye end of 12-inch telescope; supplies and labor—Union Iron Works	68 65
Ten cords of 4-foot wood—E. S. Holden	60 00
Ruling blanks—Hicks-Judd Co.	50
One electro blank—Bancroft Co.	75
Five hundred postal cards—J. W. Flynn	5 00
One signal service—Yale University	3 50
One letter balance—Geo. W. Welch	2 00
One half dozen chimneys—Richard Briggs	1 50
Two retort stands—H. A. Mathews	2 00
One set cork borers—H. A. Mathews	2 75
Two pounds vulcanized rubber—H. A. Mathews	3 50
One printing frame—H. A. Mathews	8 00
One ground glass—H. A. Mathews	2 50
One newspaper file—H. A. Mathews	60
Sixty paper boxes—A. Fleishhacker & Co.	3 80
Two Rochester founts—Thos. Day & Co.	4 25
Bushing three gear wheels—Wight & Branham	8 40
Mounting reversion prism—J. A. Brashear	12 00
Platinum wire—Justinian Caire	1 00
Labor as machinist, etc.—A. J. Burnham	9 30
Two pounds Canada balsam—Justinian Caire	1 30
Making valve stems—Wight & Branham	2 70
Services as carpenter—R. P. Fraser	77 00
Telegrams in May—Western Union Telegraph Co.	1 07
Telegrams in June—Western Union Telegraph Co.	5 59
Telegrams in July—Western Union Telegraph Co.	4 28
Observatory announcement for 1888—Harvard College	13 43
Freight on oil—J. Archambeault	50
Hauling during May—J. R. Kincaid	20 91
Hauling during July—H. C. Brown	14 53
Hauling during July—H. C. Brown	14 46
Freight charges—Charles B. Hill	1 25
Hauling in August—H. C. Brown	68
Express charges, April and May—Mount Hamilton Stage Co.	4 70
Express charges, May and June—Mount Hamilton Stage Co.	9 15
Express charges, June and July—Mount Hamilton Stage Co.	11 16
Express charges, July and August—Mount Hamilton Stage Co.	10 45
Express charges—Union Iron Works	25
Placing iron posts at five corners of reservation—Hugh Kennedy	9 00
Fixing place for tanks—Hugh Kennedy	11 00

DISBURSEMENTS—Continued.

Repairing water engine—Union Iron Works.....	\$54 50
Eight new shoes—T. A. Carroll.....	4 00
Fixing place for tanks—Hugh Kennedy.....	21 00
Services as laborer—Hugh Kennedy.....	14 00
Postage stamps—S. H. Wagener.....	50 00
Six dozen plates, 8x10—M. A. Seed Dry Plate Co.....	12 96
Twelve new shoes—T. A. Carroll.....	6 00
Nipples, fittings, and bibbs—Farmers Union.....	31 73
Five 2-inch gate valves—Farmers Union.....	17 50
One pair T. S. shears—Farmers Union.....	1 50
One pair Boston collars—Fred. M. Stern.....	7 00
One pair halters and straps—Fred. M. Stern.....	4 00
Two pairs sweat pads—Fred. M. Stern.....	1 50
One whip—Hartman & Normandin.....	1 25
Two tin tubes—F. Klein.....	6 80
One door—Santa Clara Valley Mill and Lumber Co.....	2 25
Single and doubletrees—J. Archambeault.....	2 75
Freight advances—J. Archambeault.....	55
Lathe work on cylinders—Wight & Branham.....	1 00
Four and one sixth dozen blank books—H. A. Mathews.....	\$12 50
One rubber stamp—H. A. Mathews.....	2 00
	\$14 50
Less 10 per cent.....	1 45
	13 05
Eighty-four and one half pounds flax packing—Union Iron Works.....	42 25
Repairing micrometer—A. Lietz & Co.....	22 80
Two dozen lamp chimneys and freight—C. W. J. Martens.....	5 50
Expressage prepaid—B. Westermann & Co.....	5 60
Expressage during August and September—Mount Hamilton Stage Co.....	15 70
Freight on packing—Southern Pacific Co.....	25
Transporting eclipse reports—Wells, Fargo & Co.....	24 20
Expressage during September—Mount Hamilton Stage Co.....	20 60
Three relays N. P.—Paul Seilers Electrical Works.....	13 50
Three cells Dr. Gassner battery—Paul Seilers Electrical Works.....	4 50
Ten pounds chromic acid—Paul Seilers Electrical Works.....	3 50
One dozen ferrotype plates—H. A. Mathews.....	1 80
Three ounces hydroquinine—H. A. Mathews.....	2 55
One ounce hydrate sodium—H. A. Mathews.....	25
One dozen hooks and staples—H. A. Mathews.....	1 00
One thousand eight hundred McGill's fasteners—H. A. Mathews.....	6 03
One railroad lantern—H. A. Mathews.....	1 75
One brace and saw—Farmers Union.....	1 95
Twelve-foot stepladder—Farmers Union.....	4 80
One gross screws—Farmers Union.....	1 60
One pair butts—Farmers Union.....	20
Lock and glue—Farmers Union.....	1 25
One half dozen padlocks—Farmers Union.....	1 75
One ebony diamond—Farmers Union.....	7 25
One half bolt twine—Farmers Union.....	50
Sandpaper and brush—Farmers Union.....	50
Five gallons shellac—Farmers Union.....	22 50
Special work on spectroscope—John A. Brashear.....	79 00
One short focus objective—John A. Brashear.....	12 00
One long focus objective—John A. Brashear.....	12 00
One lens for photo work—John A. Brashear.....	7 00
One special eyepiece—John A. Brashear.....	20 00
Expressage—John A. Brashear.....	3 15
Control for driving clock—Union Iron Works.....	37 96
Drawing of bronze tablet—F. Seregni.....	15 00
Expressage—Patterson & Co.....	65
Postage stamps—S. H. Wagener.....	10 00
Postage stamps—S. H. Wagener.....	10 00
Postage stamps—S. H. Wagener.....	15 00
Fifteen cases Starlight oil—Goldberg, Bowen & Co.....	37 50
Freight on same—Goldberg, Bowen & Co.....	2 40
Refiguring surfaces of spectroscope—John A. Brashear.....	20 00
Payment of all charges for expressage up to January 1, 1890—Mt. Hamilton Stage Co.....	400 00
One hundred and fifty porcelain insulators—Paul Seilers Electrical Works.....	2 65

DISBURSEMENTS—Continued.

One hundred and fifty 2-inch screws—Paul Seilers Electrical Works	\$1 50
Boxing same—Paul Seilers Electrical Works	10
Eight new shoes—T. A. Carroll	4 00
One hundred and fifty insulators and screws—Paul Seilers Electrical Works	4 25
Refilling level and caps—A. Leitz & Co.	3 50
One door—Santa Clara Valley Mill and Lumber Co.	5 00
One ream P. O. paper—H. A. Mathews	1 00
Two and one half pounds cotton rope—H. A. Mathews	1 25
One ream manilla paper—H. A. Mathews	3 50
One box rubber bands—H. A. Mathews	65
Five dozen 8x10 dry plates—E. & H. J. Anthony & Co.	15 66
One H. W. G. lantern—E. & H. J. Anthony & Co.	
Five boxes F. P. paper—E. & H. J. Anthony & Co.	
One folio diary—Payot, Upham & Co.	2 50
Five dozen 8x10 carburt plates—Samuel C. Partridge	15 15
Twenty ounces pyrogallic acid—H. A. Mathews	9 00
Two dozen nickel butts—H. A. Mathews	10 40
One Billings wrench—H. A. Mathews	1 00
One thousand brass-head tacks—H. A. Mathews	1 50
Half dozen balls hemp cord—H. A. Mathews	1 50
One dozen stove bolts—H. A. Mathews	25
Ten dozen Acme note—H. A. Mathews	10 50
Two dozen oil boards—H. A. Mathews	1 50
Carpenter work—S. Howarth	55 00
Expenses to Lick Observatory and return—J. C. Rowell	5 50
Eleven indexes—Payot, Upham & Co.	3 30
One dozen transfer cases—Payot, Upham & Co.	4 20
Five yards curtaining—Rucker Bros.	1 25
One hank cord—Farmers Union	1 00
Three pounds twine—Farmers Union	90
Ten pounds putty—Farmers Union	40
Vaseline—Farmers Union	50
Two and one half pounds rope—Farmers Union	45
Tacks and matches—Farmers Union	1 25
Two check valves—Farmers Union	3 50
One strip leather—Farmers Union	30
Six bolts twine—Farmers Union	60
Two sacks charcoal—Farmers Union	1 20
Six spring hinges—Farmers Union	1 00
Three pounds black paint—Farmers Union	75
Twenty pounds nails—Farmers Union	1 00
Fifty pounds buckwheat—Farmers Union	1 38
One currycomb and brush—Farmers Union	1 10
Neatsfoot oil—Farmers Union	35
One mill file—Farmers Union	20
Copper rivets—Farmers Union	75
Iron rivets—Farmers Union	25
Three files—Farmers Union	1 60
Fifteen pounds 30d nails—Farmers Union	60
Casting ring for cell of finder—Wight & Branham	2 50
Twelve dozen 3x4 plates—M. A. Seed Dry Plate Co.	4 86
Repairing wagon—Hatman & Normandin	3 00
Eight new shoes—T. A. Carroll	4 00
Postage stamps—S. H. Wagener	25 00
Hoop iron—Farmers Union	25
Six pounds ball twine—Farmers Union	1 50
Four barrels lime—Farmers Union	8 00
Two barrels cement—Farmers Union	10 50
Parlor matches—Farmers Union	1 00
Hoop iron—Farmers Union	1 25
Two bolts twine—Farmers Union	40
Three files—Farmers Union	1 20
Strapping books—Farmers Union	1 75
Cartage on books—Farmers Union	50
Two barrels cement—Farmers Union	10 30
Five hundred feet lumber—Farmers Union	12 60
Hauling five thousand and fifty feet lumber—J. D. D. Bernal	20 60
Hauling four thousand and ten pounds freight—J. D. D. Bernal	14 04
Board for man repairing telegraph line—E. Guth	5 50
Board of Joseph Roban—Repairing telegraph line	1 00
Board of Joseph Roban—Repairing telegraph line	3 00

DISBURSEMENTS—Continued.

Board of W. W. Bent—Repairing telegraph line.....	\$5 50	
Three cells Dr. Gassner battery—Paul Seilers Electrical Works ..	4 60	
Hauling one thousand six hundred and sixty pounds Eclipse Report—J. R. Kincaid.....	5 81	
Expressage during October—Mount Hamilton Stage Co.....	10 60	
Freight on reports to Washington—Farmers Union.....	17 64	
Hauling five hundred feet lumber—H. C. Brown.....	10 00	
Hauling one hundred pounds barbed wire—H. C. Brown.....	40	
Hauling two barrels cement—H. C. Brown.....	80	
Hauling three thousand five hundred pounds freight—H. C. Brown.....	14 00	
Hauling one thousand two hundred and fifty pounds freight— H. C. Brown.....	5 00	
Repairing telephone line—H. C. Brown.....	4 75	
Freight on seeds and paper—Farmers Union.....	50	
Freight on goods to East—Farmers Union.....	3 70	
Freight during November—Farmers Union.....	3 95	
One hundred feet upholstery cord—H. A. Mathews.....	75	
One developing pan—H. A. Mathews.....	16 00	
Fifty pounds wire staples—H. A. Mathews.....	9 50	
One 8x10 plate mirror—H. A. Mathews.....	75	
One calendar memoranda—H. A. Mathews.....	50	
One calendar memoranda—H. A. Mathews.....	50	
Half dozen screw pulleys—H. A. Mathews.....	60	
Hauling one thousand brick—J. R. Kincaid.....	2 50	
Finding section corners—J. R. Kincaid.....	2 50	
Repairing wagon—J. M. Hatch.....	3 25	
Swivel for windmill—H. E. Knox.....	2 50	
Crank for windmill—H. E. Knox.....	10 00	
Journal of Mathematics—B. Westermann & Co.....	7 00	
Astronomical Journal—B. Westermann & Co.....	8 00	
Astronomical Bulletin—B. Westermann & Co.....	4 75	
Observatory—B. Westermann & Co.....	3 50	
Nature—B. Westermann & Co.....	6 00	
Astronomical Journal—B. Westermann & Co.....	5 50	
Annals of Mathematics—B. Westermann & Co.....	2 00	
Sidereal Messenger—B. Westermann & Co.....	3 00	
Binding two hundred and fifty-six volumes—Hicks-Judd Co.....	197 00	
Seed barley—Farmers Union.....	4 40	
Seed oats—Farmers Union.....	3 00	
Seed rye—Farmers Union.....	2 90	
One harrow—Farmers Union.....	12 00	
Himmel und Erde—Mayer & Müller.....	3 88	
Five dozen 8x10 plates—M. A. Seed Dry Plate Co.....	\$12 00	
Two dozen 5x7 plates—M. A. Seed Dry Plate Co.....	2 20	
Four dozen 4x5 plates—M. A. Seed Dry Plate Co.....	2 60	
	\$16 80	
Less 10 per cent.....	1 68	15 12
One typewriter ribbon—Scott & Lee.....	1 00	
One dozen carbon paper—Scott & Lee.....	50	
Nails—Farmers Union.....	2 50	
Screws and bolts—Farmers Union.....	2 50	
Sponges—Farmers Union.....	1 00	
Five gallons oil—Farmers Union.....	3 90	
Binding two hundred and nineteen volumes—Hicks-Judd Co.....	208 75	
One gallon alcohol—Farmers Union.....	2 50	
Matches—Farmers Union.....	2 00	
One hundred pounds white lead—Farmers Union.....	6 50	
Three cases Starlight oil—Goldberg, Bowen & Co.....	7 05	
Freight on same—Goldberg, Bowen & Co.....	50	
Ink for instruments—Draper Manufacturing Co.....	2 90	
Two dozen Abies mertensiana—Trumbull & Beebe.....	1 40	
Four dozen Libocedrus decurrens—Trumbull & Beebe.....	1 60	
Six dozen Pinus Coulteri—Trumbull & Beebe.....	1 80	
Thirty-two ounces seeds—Thomas A. Cox & Co.....	16 20	
One safety valve—Farmers Union.....	5 00	
Ten gallons raw oil—Farmers Union.....	7 50	
Two hundred pounds P. metallic—Farmers Union.....	6 00	
Seven brushes—Farmers Union.....	3 60	
Six Mann's copying books—Payot, Upham & Co.....	6 75	
One 5-inch periscopic eyepiece—Gundlach Optical Co.....	100 00	

DISBURSEMENTS—Continued.

Two hanks upholstery cord—H. A. Mathews	\$0 75
Expressage on goods from New York—Wells, Fargo & Co.	14 40
One self-registering thermometer—Richard Frères, Paris	26 46
New crank for windmill—H. E. Knox	10 00
Binding fifteen volumes—Hicks-Judd Co.	14 05
Five pounds sulph. soda—Sam. C. Partridge	3 00
Five pounds carb. soda—Sam. C. Partridge	2 75
Two 6-ounce graduates—Sam. C. Partridge	1 30
Two 2-ounce graduates—Sam. C. Partridge	70
Two 1-ounce graduates—Sam. C. Partridge	60
Eight ounces pyro—Sam. C. Partridge	3 00
Three dozen Eastman plates—Sam. C. Partridge	2 10
Seven dozen carbott plates—Sam. C. Partridge	4 65
Six bottles red ink—Farmers Union	1 10
One hundred 5-cent stamps—S. H. Wagener	5 00
Five hundred 2-cent stamps—S. H. Wagener	10 00
Five hundred 1-cent stamps—S. H. Wagener	5 00
One 10-inch file—Farmers Union	20
Six mops—Farmers Union	1 20
Assorted files—Farmers Union	1 75
Putty—Farmers Union	1 00
Sandpaper—Farmers Union	1 00
Glue—Farmers Union	1 50
Assorted pins—H. A. Mathews	1 00
Assorted rubber bands—H. A. Mathews	4 00
Five twelfth dozen paste—H. A. Mathews	1 25
Straightening three valve stems—Wight & Branham	80
Tinning plate holders—W. W. Bent	5 50
Labor and supplies repairing line—Sunset Telephone Co.	11 00
Expenses of W. G. Klee at Mount Hamilton	18 40
Three hundred and sixty forest trees—California Nursery Co.	34 00
Six cases Starlight oil—Goldberg, Bowen & Co.	14 75
Toilet paper—Farmers Union	2 00
Staples—Farmers Union	50
One thousand one hundred and seventy-five feet redwood—Santa Clara Valley Mill and Lumber Co.	35 50
One pound pure mercury—Justinian Caire	1 00
Work on small spectroscope—J. A. Brashear	100 00
Twenty copies notices—C. A. Murdock & Co.	2 00
	\$4,580 77
<i>To Department of Physical Culture.</i>	
Twenty hours' clerical services—William Fairbanks	\$6 00
Freight on seven packages gymnasium apparatus—Southern Pacific Co.	51 45
Expressage on rope and rings—Patterson & Co.	50
Expressage on rope and rings—Patterson & Co.	50
Expressage on one machine—Patterson & Co.	75
Forty-nine and one third yards ingrain carpet—McGoverns & Cahill	41 93
One Harvard chair—William S. Duncombe & Co.	70 00
One stethoscope—William S. Duncombe & Co.	3 00
One No. 1 biceptor—H. N. Cook	11 00
One No. 2 biceptor—H. N. Cook	13 00
Two waste baskets—Davis Brothers	1 00
Twenty hours' clerical services—William A. Fairbanks	6 00
Two record books—H. S. Crocker & Co.	2 70
One daybook—H. S. Crocker & Co.	60
Expressage on one box—Wells, Fargo & Co.	70
Two tape lines—Justinian Caire	3 50
Fifty pounds resin—Chas. J. Hendry	2 00
Four spring shades—W. J. Sloane & Co.	4 90
Four stop pulleys—W. J. Sloane & Co.	24
One half dozen hemp sash cords—Huntington-Hopkins Co.	3 50
Expressage on seven packages apparatus—Patterson & Co.	2 50
Expressage on two baskets—Patterson & Co.	25
Expressage on two packages—Patterson & Co.	50
Expressage on one box resin—Patterson & Co.	25
Steel tape line—Justinian Caire	1 50
Expressage on two packages—Patterson & Co.	35
One vaulting horse—H. Geiss	45 00
Repairing old horse—H. Geiss	10 00
Four felt mats—H. Geiss	140 00

DISBURSEMENTS—Continued.

One copy press—Payot, Upham & Co.		\$9 88
One copybook—Payot, Upham & Co.		1 50
One quart comb. ink—Payot, Upham & Co.		75
Twelve sets chest weights—D. A. Sargent	144	00
One abdominal machine—D. A. Sargent		8 50
One lunger plain belt—D. A. Sargent		5 00
One giant pulley—D. A. Sargent		10 00
One height measure and box—D. A. Sargent		12 00
One width measure—D. A. Sargent		4 00
One length measure—D. A. Sargent		4 00
Expressage—Wells, Fargo & Co.		75
Chart for club swinging—W. R. McDaniel	\$5	00
Book on club swinging—W. R. McDaniel	1	00
		<hr/>
		\$6 00
Less		1 00
		<hr/>
		5 00
Expressage on four mattresses and horse—Patterson & Co.		2 50
One case oil—Joseph McClain		2 50
One case oil—Joseph McClain		2 50
One oil heating stove—Weister & Co.	12	00
One yellow glass light—Whittier, Fuller & Co.		90
Furnishing and placing one rolled steel bar—Crisman, Brown & Co.	220	00
One smooth plane—Dunham, Carrigan & Hayden Co.	2	00
One wrench—Dunham, Carrigan & Hayden Co.	1	25
One auger bit—Dunham, Carrigan & Hayden Co.		50
One hand vise—Dunham, Carrigan & Hayden Co.		1 00
One glue pot—Dunham, Carrigan & Hayden Co.		1 50
Five pounds glue—Dunham, Carrigan & Hayden Co.		1 00
Five pounds powdered emery—Dunham, Carrigan & Hayden Co.	2	00
Five pounds rotten stone—Dunham, Carrigan & Hayden Co.		50
Chloride of lime—Dunham, Carrigan & Hayden Co.	1	00
Expressage on one box—Patterson & Co.		50
Expressage on three cases weights—Patterson & Co.		75
Expressage on one letter press—Patterson & Co.		50
One case astral oil—Joseph McClain	2	50
“Physical Education”—Narragansett Machine Co.	\$1	80
“How to get Strong”—Narragansett Machine Co.	1	00
“Club Swinging”—Narragansett Machine Co.		50
“Code Book”—Narragansett Machine Co.		60
“Flat and Round Pyramids”—Narragansett Machine Co.		80
“Pyramid for Gymnasium”—Narragansett Machine Co.		45
		<hr/>
		\$5 15
Less		80
		<hr/>
		4 35
One 12-inch medium ball—Narragansett Machine Co.	\$9	50
One 16-pound shot bag—Narragansett Machine Co.	8	00
Four vaulting poles—Narragansett Machine Co.	13	00
One 28-foot rope—Narragansett Machine Co.	15	00
Four dozen maple wands—Narragansett Machine Co.	7	00
		<hr/>
		\$52 50
Less 20 per cent		10 50
		<hr/>
		42 00
One 8-foot screen—Nichaus Bros. & Co.		10 00
One surgeon's bag—A. B. Merrill		10 00
Expressage on two boxes—Patterson & Co.		50
Expressage on one box from Boston—Wells, Fargo & Co.		3 00
One spirometer—D. A. Sargent		10 00
Expressage on poles and bundles—Patterson & Co.		1 00
Freight on three packages apparatus—Southern Pacific Co.		5 04
One case astral oil—Joseph McClain		2 50
Two steel tapes—Justinian Caire		3 50
Two striking bags—H. N. Cook		15 00
One pair striking gloves—H. N. Cook		2 00
Expressage on punch bags—Patterson & Co.		25
“Anatomical Auxiliary”—Narragansett Machine Co.		2 00
“Flat and Round Pyramids”—Narragansett Machine Co.		80
One hatter's measure—David Wilcox & Co.		75 00
Hot water heating apparatus—Harvey Heating Co.	995	00
Book on the human anatomy—Samuel Carson & Co.		36 00
Expressage—Wells, Fargo & Co.		6 50

DISBURSEMENTS—Continued.

One trapeze and rope—Narragansett Machine Co.	\$6 00
Books—D. Appleton & Co.	1 38
Two 12-inch flat files—J. W. Savage	1 00
Thirteen sheets emery cloth—J. W. Savage	1 00
One dozen concentrated lye—Kelsey Bros.	1 40
Two brass rods—J. C. Aitken	80
"Natural Method of Physical Culture"—S. Carson & Co.	1 50
"Elements of Natural Philosophy"—S. Carson & Co.	1 40
One letter book—Payot, Upham & Co.	2 25
Repairing mats in Gymnasium—J. T. Baum	5 00
O'Reilley's Athletics—Samuel Carson & Co.	1 50
Ten "Laws of Health"—Samuel Carson & Co.	1 50
Repairing three striking bags—H. B. Cook	3 50
Four thermometers—Rutledge's Drug Store	1 40
Lamp for oculist—W. F. Southern	5 00
Making black mantle for oculist—Nellie Fay	2 00
Clerical services—E. H. Barker	4 80
Clerical services—L. M. Hall	4 20
Salaries for the year ending June 30, 1890	2,499 96
	\$4,653 93

To Library.

Expressage on twelve boxes books—Patterson & Co.	\$2 00
Expressage on one case books—Patterson & Co.	75
Expressage on one box books—Patterson & Co.	50
Expressage on two cases books—Patterson & Co.	2 00
Expressage on one case books—Patterson & Co.	1 00
Expressage—Wells, Fargo & Co.	30
Five hundred 2-cent stamps—N. B. Byrne	10 00
One hundred and fifty 1-cent stamps—N. B. Byrne	1 50
Sixty 5-cent stamps—N. B. Byrne	3 00
Twenty-five 2-cent postals—N. B. Byrne	50
Expressage—Wells, Fargo & Co.	2 10
One Edison mimeograph—Samuel Hill Co.	20 00
Insurance—Canton Insurance Co.	2 15
Gum tragacanth—A. B. Merrill	1 00
Expressage—Wells, Fargo & Co.	70
Expressage—Wells, Fargo & Co.	2 40
Proceedings Academy of Sciences—H. Welter	3 55
Ten volumes North American Review—H. C. Maercher	6 90
Subscriptions for following periodicals—C. S. Greene:	
Critic	2 55
Harpers Magazine	3 15
Magazine American History	4 25
Mining and Scientific Press	2 40
Rural Press	2 40
Overland Monthly	3 20
Blackwood and Edinburgh Quarterly	11 95
Nineteenth Century, Fortnightly, and Cont. Review	11 50
Westminster Review	3 65
One thousand postal cards—N. B. Byrne	10 00
Expressage—Wells, Fargo & Co.	3 60
Expressage on one case books—Patterson & Co.	50
Expressage on one package maps—Patterson & Co.	50
Expressage on three cases paper—Patterson & Co.	1 75
Freight on one case books—Southern Pacific Co.	12 45
Subscription to periodicals—H. Welter	4 48
Academy of Natural Sciences	5 00
Volume 37 American Association for Advancement of Science	1 30
Expressage—Wells, Fargo & Co.	1 10
Expressage on three cases—Patterson & Co.	2 00
One box stub pens—W. B. Hardy	1 00
Two boxes No. 404 pens—W. B. Hardy	1 50
One box Falcon pens—W. B. Hardy	75
One half pint scarlet ink—W. B. Hardy	60
Expressage—Wells, Fargo & Co.	3 50
Expressage on twenty-nine packages—Patterson & Co.	2 00
Expressage on two cases—Patterson & Co.	2 00
Expressage on one case—Patterson & Co.	75
Expressage on four cases books—Patterson & Co.	3 50
Expressage on one case books—Patterson & Co.	1 25
Expressage on one case photos—Patterson & Co.	50
Subscription for periodicals for year 1890—Kenyon News Agency	293 30

DISBURSEMENTS—Continued.

Transactions American Philological Association.....	\$2 00	
Expressage—Wells, Fargo & Co.....	4 75	
Subscription to periodicals—H. Welter..... (Fcs. 899.75)	176 41	
One Mooray's Dictionary, Part 5—Macmillan & Co.....	2 93	
Subscription to periodicals—Kenyon News Agency.....	17 05	
Expressage—Wells, Fargo & Co.....	4 65	
Binding forty-eight newspaper files—Hicks-Judd Co.....	84 00	
Binding ninety-five volumes—Hicks-Judd Co.....	71 82	
Books—Mayer & Müller..... (M. 1,753.05)	425 12	
Expressage—Patterson & Co.....	3 60	
Three hundred 1x1-inch lattice—Niehaus Bros. & Co.....	2 15	
One hammer—C. L. Maxwell.....	75	
One screwdriver—C. L. Maxwell.....	30	
Expressage—Wells, Fargo & Co.....	1 65	
Binding sixty-two volumes—Hicks-Judd Co.....	56 30	
Journal American Oriental Society, Vol. XIII.....	4 73	
Transactions of American Philological Association for 1889.....	2 50	
Four volumes "North American Review"—H. C. Maercher.....	4 25	
One Bosworth Letters Dictionary—Macmillan & Co.....	3 49	
Expressage on one case books—Patterson & Co.....	1 00	
Expressage on four cases books—Patterson & Co.....	1 50	
Freight on four cases books—Southern Pacific Co.....	80	
Expressage—Wells, Fargo & Co.....	2 65	
Binding twenty-seven newspaper files—Hicks-Judd Co.....	47 25	
Fifty-five 15-cent stamps—N. B. Byrne.....	8 25	
Two hundred and fifty 10-cent stamps—N. B. Byrne.....	25 00	
One hundred and thirty-five 5-cent stamps—N. B. Byrne.....	6 75	
Two hundred and fifty 1-cent stamps—N. B. Byrne.....	2 50	
Binding two hundred and fifty-eight volumes—Hicks-Judd Co.....	232 90	
Expressage—Patterson & Co.....	2 00	
Memorial Academy of Sciences—H. Welter.....	2 96	
Royal Philosophical Society—B. F. Stevens.....	14 47	
Two letter copybooks—W. B. Hardy.....	4 50	
Periodicals from France—H. Welter.....	14 63	
Expressage—Wells, Fargo & Co.....	3 20	
Purchase of books in Europe—Bernard Moses.....	500 00	
Binding sixty-three volumes—Hicks-Judd Co.....	55 55	
Expressage on ten cases books—Patterson & Co.....	9 75	
Freight charges advanced—Patterson & Co.....	6 70	
Astronomical Journal, Cambridge.....	5 00	
One Annual, 1889—D. Appleton & Co.....	5 40	
New Review, seven months—Kenyon News Agency.....	1 05	
Binding five hundred and fifty-five volumes—Hicks-Judd Co.....	183 30	
Proceedings for 1890—Academy Natural Sciences.....	5 00	
Expressage—Wells, Fargo & Co.....	40	
		\$2,469 60
<i>To University Site Improvements.</i>		
One coil barb wire and staples—Dunham, Carrigan & Hayden Co.....	\$4 79	
Labor, as per July payroll.....	227 00	
Labor, as per August payroll.....	226 00	
One Johnson hose coupling—H. W. Finson.....	1 60	
Labor, as per September payroll.....	210 00	
Treatment of horse's eyes—Dr. A. de Tavel.....	84 50	
Baling seventy-eight bales hay (10.125 tons)—John Meyers.....	19 65	
One lawn sprinkler—Pierce & Co.....	2 50	
Three iron wedges—Nelson & McLellan.....	1 50	
One gallon lard oil—Joseph McClain.....	1 00	
Two cans grease—Joseph McClain.....	30	
One crosscut saw—Dunham, Carrigan & Hayden Co.....	3 15	
One one-man saw—Dunham, Carrigan & Hayden Co.....	2 50	
One pair Climax handles—Dunham, Carrigan & Hayden Co.....	50	
One Morrel sawset—Dunham, Carrigan & Hayden Co.....	1 40	
One half dozen mill files—Dunham, Carrigan & Hayden Co.....	95	
Expressage on roll wire and one package—Patterson & Co.....	50	
Two hundred pounds coarse salt—Joseph McClain.....	2 40	
New crossbar in rake—Nelson & McLellan.....	2 00	
New tooth cleaner in rake—Nelson & McLellan.....	50	
One casting and bolt for mower—Nelson & McLellan.....	75	
Eight new shoes—Nelson & McLellan.....	4 00	
Labor, as per October payroll.....	219 00	
Steeling two picks—Nelson & McLellan.....	1 50	
Two clevis pins and keys—Nelson & McLellan.....	25	

DISBURSEMENTS—Continued.

One pick steeled and sharpened—Nelson & McLellan	\$0 00
Eight new shoes—Nelson & McLellan	4 00
Repairing harness—P. Nichelmann	8 00
Two zinc collar pads—P. Nichelmann	1 00
Four hame straps—P. Nichelmann	80
One pair spreads and rings—P. Nichelmann	50
Labor, as per November payroll	224 00
One thousand five hundred and thirty-one pounds seed oats—Paul Keyser	21 43
Labor, as per December payroll	218 00
Two shares sharpened, and handle—Nelson & McLellan	1 50
Eight new shoes—Nelson & McLellan	4 00
Eight 8-ounce vials—A. B. Merrill	35
One journal—A. B. Merrill	1 50
Labor, as per January payroll	201 00
Expressage on eighteen sacks oats—Patterson & Co.	3 50
Labor, as per February payroll	157 00
Repairing chain, and nut to cart—Nelson & McLellan	75
Crank to grindstone—Nelson & McLellan	1 50
Two shares sharpened, and one bolt—Nelson & McLellan	75
Eight new shoes—Nelson & McLellan	4 00
Labor, as per March payroll	255 00
One 1½-inch elbow—Alameda Water Co.	15
Putting in pipe, etc., on campus—J. J. Dunn	190 02
Labor, as per April payroll	305 00
Blacksmithing for April—Nelson & McLellan	14 10
One half dozen lawn rakes—Joseph McClain	4 20
Labor, as per May payroll	330 00
Blacksmithing for May—Nelson & McLellan	10 50
	\$2,981 69

To Department of Physics.

Ten plates of photographic map of solar spectrum—N. Murray	\$18 28
One Galton whistle—James W. Queen & Co.	6 50
Three and one half pounds ether—Justinian Caire	2 80
Two ounces platinum wire—Justinian Caire	24 00
Ten boxes labels—Justinian Caire	1 00
Sixteen and three eighths pounds zinc—Justinian Caire	1 64
One dozen test tubes—Justinian Caire	1 05
Six 16-ounce flasks—Justinian Caire	1 80
Six 8-ounce flasks—Justinian Caire	1 20
Six 4-ounce flasks—Justinian Caire	75
Twelve 2-ounce flasks—Justinian Caire	1 20
Two tweezers—Justinian Caire	40
One can vaseline—Justinian Caire	50
Six candlesticks—Justinian Caire	1 00
Wrapping paper—Justinian Caire	95
One dozen chimneys—Justinian Caire	75
Candles—Justinian Caire	
Five pounds nitrate ammonia—Justinian Caire	1 50
One 12-inch vernier caliper—Darling, Browne & Sharpe	22 88
One No. 2 Edison mimeograph—Samuel Hill Co.	25 00
Expressage on three packages—Patterson & Co.	50
Forty-eight feet corrugated tube—W. F. Bowers & Co.	3 60
Four feet tube—W. F. Bowers & Co.	2 50
Twenty-five yards silesia—F. Slate	2 50
Seven pounds candles—F. Slate	1 40
Ice and salt—F. Slate	75
Expressage on one package—Patterson & Co.	25
Expressage on one package hose—Patterson & Co.	35
Expressage on one package from Philadelphia—Wells, Fargo & Co.	65
Expense of visiting eastern physical laboratories—F. Slate	250 00
Expressage—Patterson & Co.	17 10
Freight and expressage on three cases—Patterson & Co.	24 00

To University Printing Office.

Expressage—Patterson & Co.	\$12 35
Type—Tatum & Bowen	255 33
Paper—Blake, Moffitt & Towne	87 72
Ink—E. J. Shattuck & Co.	27 80
Printing press—Tatum & Bowen	336 25
Traveling expenses—J. W. Flynn	1 50

DISBURSEMENTS—Continued.

Sundries	\$3 50	
Salaries for the year ending June 30, 1890	720 00	
		\$1,444 45
<i>To Department of Mineralogy.</i>		
Two hundred and seventy slices of rock specimens—B. Sturtz, Bonn	\$92 06	
Freight and Consul charges—J. R. McDonald & Co.	9 67	
One stone-cutting machine—Max Wolz, Bonn	116 30	
Freight and Consul charges—J. R. McDonald & Co.	17 15	
One and one-half carat diamond—F. Moorecroft	7 50	
One center-feed for stone-cutting machine—Max Wolz ..	18 96	
Freight and Consul charges—J. R. McDonald & Co.	6 75	
Expressage on one box—Patterson & Co.	75	
One half dozen blank books—A. B. Merrill	1 50	
Repairs to stone lathe—A. Erlandsen	40	
Expressage on one case—Boyd's Express	50	
Expressage on one box—Patterson & Co.	50	
Expressage—Wells, Fargo & Co.	1 30	
		273 16
<i>To College of Civil Engineering.</i>		
Three pounds manilla rope—Congdon & Co.	\$0 54	
Expressage on one package—Wells, Fargo & Co.	55	
Iron gearing for Observatory—Oakland Iron Works	35 00	
Two cases coal oil—Joseph McClain	6 40	
Two lanterns to order—A. S. Graff & Co.	18 00	
Three wicks to order—A. S. Graff & Co.	1 00	
Two hundred cards for thermometer—E. L. Woods	3 40	
Repairs on sextant—A. Lietz & Co.	1 00	
Two trips to San Francisco—Carl Rabe	50	
Two trips to San Francisco—Carl Rabe	60	
Rain gauge—San Francisco Bulletin Co.	3 00	
Three French glass plates—F. M. Farwell	21 00	
One French plate glass—F. M. Farwell	12 00	
Expressage and cartage—F. M. Farwell	1 50	
Repairing sextant—A. Lietz & Co.	3 25	
Drawing—H. G. Parker	2 60	
Wood work for gearing, dome of Observatory—Niehaus Bros. & Co.	7 50	
Expressage—Wells, Fargo & Co.	85	
Six brass shoes—Justinian Caire	3 60	
One mimeograph—Samuel Hill Co.	22 50	
Sheet-iron work on Observatory—B. E. Underwood	45 00	
Two corner irons—Nelson & McLellan	75	
Cutting and drilling casting—Nelson & McLellan	2 00	
Expressage on two boxes—Patterson & Co.	60	
Expenses to Oakland and return—Carl Rabe	20	
Two candlesticks—Dalziel & Moller	60	
Repairing lantern—Dalziel & Moller	50	
Two wire card racks—Le Count Bros.	1 20	
One long-handled ax—A. Erlandsen	85	
Two hatchets—A. Erlandsen	1 20	
Two tapes repaired—A. Erlandsen	50	
One burner and wicks—A. S. Graff & Co.	75	
Looking-glass—S. & G. Gump	50	
Drawing—Walter C. Allen	2 25	
One tin chloride of lime—Lebenbaum Bros.	2 45	
One set alphabet letters—Walter C. Allen	20 00	
Expressage on one package—Patterson & Co.	25	
Two boxes candles—Joseph McClain	7 00	
One spirit level and repairs—A. Lietz & Co.	17 50	
Two thousand 1-cent stamps—N. B. Byrne	20 00	
Repairing governor for clock—Josephus Speak	11 50	
Expert work on astronomical clock—Lewis McKisick	10 00	
Six blank books—Dutton & Partridge	6 00	
One roll catgut—Justinian Caire	1 00	
Telegrams—Western Union Telegraph Co.	2 30	
Repairing level—A. Lietz & Co.	2 50	
Two brushes—Hawley Bros. Hardware Co.	70	
Three dozen goose feathers—Hawley Bros. Hardware Co.	30	
One brass handle—Hawley Bros. Hardware Co.	20	
Four dozen brass screws—Hawley Bros. Hardware Co.	60	
Salaries for the year ending June 30, 1890	11,532 89	
		11,836 88

DISBURSEMENTS—Continued.

To College of Mechanics.

Expressage on one box—Patterson & Co.	\$0 25
Expressage on three packages—Patterson & Co.	50
Four thousand three hundred cubic feet gas—Oakland Gas Co.	11 55
Two dozen chilled iron saws—Justinian Caire	2 00
One large knife for extension bit—Justinian Caire	80
One small knife for extension bit—Justinian Caire	40
One screw wrench, 8-inch, black—Justinian Caire	55
One screw wrench, 10-inch, black—Justinian Caire	65
One screw wrench, 12-inch, black—Justinian Caire	75
One machinist's hammer—Justinian Caire	75
One riveting hammer, 44—Justinian Caire	35
One riveting hammer, 43—Justinian Caire	40
One 8-inch smooth plane—Justinian Caire	1 60
One dozen Murphy gravers—Justinian Caire	3 75
Three packages Escut pins—Justinian Caire	1 50
Three pounds copper rivets and burrs—Justinian Caire	1 05
One 7-inch side-cutting stub pliers—Justinian Caire	1 65
One $\frac{3}{4}$ soldering iron—Justinian Caire	1 20
Sixteen pounds solder—Justinian Caire	3 20
Screw eyes and hooks—Justinian Caire	1 20
One set tightening screw plates—Justinian Caire	8 20
Two match boxes—Justinian Caire	50
One hundred 2-cent stamps—N. B. Byrne	2 00
Ten 5-cent stamps—N. B. Byrne	50
Two hundred and twenty 1-cent stamps—N. B. Byrne	2 20
One hundred 1-cent wrappers—N. B. Byrne	1 10
One hundred 2-cent envelopes—N. B. Byrne	2 20
Three thousand seven hundred cubic feet gas—Oakland Gas Co.	9 25
Six thousand four hundred cubic feet gas—Oakland Gas Co.	12 75
Two 1-inch hook hangers—Clot & Meese	4 00
Two 1-inch collars—Clot & Meese	80
One thousand cards, cut to order—J. J. Evans	1 75
Seven paper pads—J. J. Evans	1 25
Three dozen pencils—J. J. Evans	75
Forty-seven and one half pounds brass castings—F. Baud	14 25
Emery cloth and paper—Dunham, Carrigan & Hayden Co.	4 25
Three and one half dozen flat smooth files—Dunham, Carrigan & Hayden Co.	\$4 83
Four dozen bastard and cut files—Dunham, Carrigan & Hayden Co.	15 93
Half doz. smooth files—Dunham, Carrigan & Hayden Co.	1 86
Half doz. bastard files—Dunham, Carrigan & Hayden Co.	1 60
Two doz. taper saw files—Dunham, Carrigan & Hayden Co.	4 10
One dozen slim tapers—Dunham, Carrigan & Hayden Co.	1 90
Quarter dozen slim tapers—Dunham, Carrigan & Hay- den Co.	3 33
One doz. round 2d cut—Dunham, Carrigan & Hayden Co.	3 03
	\$33 58
Less	14 65
	18 93
Quarter dozen Stubb's square files—Dunham, Carrigan & Hayden Co.	\$0 49
Half dozen Stubb's 6-inch files—Dunham, Carrigan & Hayden Co.	1 87
Half dozen Stubb's flat files—Dunham, Carrigan & Hayden Co.	1 88
	\$4 24
Less 10 per cent	42
	3 82
One dozen mill files—Dunham, Carrigan & Hayden Co.	1 80
Three thousand eight hundred cubic feet gas—Oakland Gas Co.	9 50
Five thousand cubic feet gas—Oakland Gas Co.	12 50
Expressage on one bale waste—Patterson & Co.	75
Seven thousand six hundred cubic feet gas—Oakland Gas Co.	19 00
Expressage on two cases of oil—Patterson & Co.	75
Expressage on two bars steel—Patterson & Co.	35
Expressage on one sack castings—Patterson & Co.	50
Expressage on three sacks castings—Patterson & Co.	2 50
Seven thousand four hundred cubic feet gas—Oakland Gas Co.	18 50

DISBURSEMENTS—Continued.

Five thousand two hundred cubic feet gas—Oakland Gas Co.	\$13 00	
Salaries for the year ending June 30, 1890.	12,787 31	
		\$13,001 16
<i>To College of Mines.</i>		
Expressage on one box of glass—Patterson & Co.	\$0 25	
Expressage on three cases of machinery—Patterson & Co.	2 00	
Five tons English coke—T. H. Henderson, agent.	100 00	
One thousand one hundred cubic feet gas—Oakland Gas Co.	3 05	
Two hundred cubic feet gas—Oakland Gas Co.	55	
One hundred and five gallons of coal oil—Osborn & Alexander.	12 60	
Expressage on one package castings—Patterson & Co.	25	
Expressage on one case machinery—Patterson & Co.	1 00	
Freight on one case of machinery—Atlantic & Pacific R. R.	12 09	
One thousand one hundred cubic feet gas—Oakland Gas Co.	3 05	
Rubber tubing—Justinian Caire.	4 50	
Riders—Justinian Caire.	1 00	
One pulley—Clot & Meese.	4 50	
Expressage on one tank oil—Patterson & Co.	3 50	
Three thousand nine hundred cubic feet gas—Oakland Gas Co.	10 75	
One thousand three hundred cubic feet gas—Oakland Gas Co.	3 60	
Three thousand one hundred cubic feet gas—Oakland Gas Co.	7 75	
Four thousand four hundred cubic feet gas—Oakland Gas Co.	8 75	
Twelve feet $\frac{1}{2}$ -inch pipe—John J. Menges.	70	
Twenty-six pieces plain glass—John J. Menges.	1 00	
One nipple to order—Dalziel & Moller.	20	
One copying ribbon for typewriter—Jones & Givens.	1 50	
One shield—Jones & Givens.	10	
Three impression strips—Jones & Givens.	25	
Repairs to dynamo—Keith Electric Co.	1 50	
One gaspipe die—C. F. Marwedel.	1 50	
One foot brass tube—C. F. Marwedel.	40	
Welding end of tube—Hinckley, Spiers & Hayes.	75	
One dynamo to San Francisco and return—Patterson & Co.	1 00	
Three thousand four hundred cubic feet gas—Oakland Gas Co.	8 50	
Seven thousand five hundred cubic feet gas—Oakland Gas Co.	18 75	
Eight thousand six hundred cubic feet gas—Oakland Gas Co.	21 50	
Two water-gauge glasses—Osborn & Alexander.	50	
Five assorted files—Savage Bros.	50	
Expressage on castings—Patterson & Co.	3 00	
Expressage on coal—Wells, Fargo & Co.	35	
Fifty pounds dairy salt—Joseph McClain.	70	
Two furnace cover clamps—W. McIntosh.	2 00	
Expressage—Patterson & Co.	5 35	
One thousand nine hundred cubic feet gas—Oakland Gas Co.	4 75	
Two thousand four hundred cubic feet gas—Oakland Gas Co.	6 00	
Three paper screws—Savage Bros.	1 05	
Fifty-two feet redwood—Henry W. Taylor.	2 05	
One half gross screws—Savage Bros.	50	
One half dozen pencils—Savage Bros.	25	
One half dozen bolts—Savage Bros.	36	
Salaries for the year ending June 30, 1890.	9,036 05	
		\$9,300 25

To Equipment and Repairs.

	Marks.
Thirty copies "Xenophon's Historia Græca"—J. R. McDonald & Co.	21.60
Thirty copies "Plato's Dialogi"—J. R. McDonald & Co.	14.40
Thirteen copies "Plato's Dialogi"—J. R. McDonald & Co.	12.00
Twelve copies "Plato's Dialogi"—J. R. McDonald & Co.	
Thirty copies "Xenophon's Anabasis"—J. R. McDonald & Co.	18.00
Thirty copies "Homer's Iliad"—J. R. McDonald & Co.	18.00
Twenty-five copies "Xenophon's Commentari"—J. R. McDonald & Co.	9.00
Fifteen copies "Herodotus"—J. R. McDonald & Co.	25.00
Twelve copies "Herodotus"—J. R. McDonald & Co.	
Thirteen copies "Homer's Odysse"—J. R. McDonald & Co.	15.00
Twelve copies "Homer's Odysse"—J. R. McDonald & Co.	
Thirteen copies "Thucydides"—J. R. McDonald & Co.	30.00
Twelve copies "Thucydides"—J. R. McDonald & Co.	

DISBURSEMENTS—Continued.

Thirteen copies "Demosthenes' Orationes"—J. R. McDonald & Co.	M.15.00	
Twelve copies "Demosthenes' Orationes"—J. R. McDonald & Co.		
Twenty copies "Æschylus"—J. R. McDonald & Co.		24.00
Thirteen copies "Euripides"—J. R. McDonald & Co.		30.00
Twelve copies "Euripides"—J. R. McDonald & Co.		24.00
Twenty copies "Sophocles"—J. R. McDonald & Co.		19.20
Twenty copies "Lysias"—J. R. McDonald & Co.		7.20
Ten copies "Æschines"—J. R. McDonald & Co.		12.00
Five copies "Aristophanes"—J. R. McDonald & Co.		4.20
Freight to Hamburg—J. R. McDonald & Co.		3.50
Receiving, cartage, shipping—J. R. McDonald & Co.		48.75
Freight to San Francisco—J. R. McDonald & Co.		10.70
Consul's certificate—J. R. McDonald & Co.		18.30
Commission—J. R. McDonald & Co.		4.50
Case and packing—J. R. McDonald & Co.		
	M. 384.35	\$92 84
Twelve pounds sash cord—Dunham, Carrigan & Hayden Co.		4 20
One half dozen knob locks—Dunham, Carrigan & Hayden Co.		8 03
One half dozen L. P. butts—Dunham, Carrigan & Hayden Co.		2 25
One dozen transome catches—Dunham, Carrigan & Hayden Co.		83
Ten lbs. wire brads 1x17—Dunham, Carrigan & Hayden Co.		
Twenty lbs. wire brads 2x12—Dunham, Carrigan & Hayden Co.		3 56
Twenty lbs. wire brads 2½x10—Dunham, Carrigan & Hayden Co.		
Five gross screws 1½x14—Dunham, Carrigan & Hayden Co.		
Two gross screws ¾x4—Dunham, Carrigan & Hayden Co.		3 33
Two gross screws ¾x9—Dunham, Carrigan & Hayden Co.		
Five hundred feet 1x12x16 surfaced redwood—Henry W. Taylor		16 50
One thousand feet 1x6x16 T. and G. redwood—Henry W. Taylor		32 00
One thousand and five feet 1½x4x12 T. and G. redwood—Henry W. Taylor		35 17
Five hundred and thirteen feet 4x4x20 redwood—Henry W. Taylor		9 23
Five hundred feet ½x12 surfaced redwood—Henry W. Taylor		16 50
One thousand feet 1x4x16 T. and G. redwood—Henry W. Taylor		32 00
One thousand feet 1x6 rough redwood—Henry W. Taylor		18 00
One thousand and three feet 2x4x16 selected pine—Henry W. Taylor		23 07
One thousand feet 1½x4x16 T. and G. pine—Henry W. Taylor		34 00
One hundred feet 1x4 rough pine—Henry W. Taylor		1 80
Mill work on redwood—Henry W. Taylor		2 50
Cartage to mill—Henry W. Taylor		50
Five sets door jambs—two feet—Niehaus Bros. & Co.		
Three sets door jambs—twenty-three feet—Niehaus Bros. & Co.		
Two hundred and sixty-five feet ½x12 base—Niehaus Bros. & Co.		
Eight transom bars—Niehaus Bros. & Co.		
Two hundred and fifty-six feet round casing—Niehaus Bros. & Co.		
Five hundred and twelve feet band molding—Niehaus Bros. & Co.		
Two hundred and fifty-six feet round band—Niehaus Bros. & Co.		
Two hundred and fifty-six feet bead—Niehaus Bros. & Co.		
Five hundred and six feet band—Niehaus Bros. & Co.		111 25
Two hundred and fifty feet casing—Niehaus Bros. & Co.		
Two hundred and fifty-six feet band back—Niehaus Bros. & Co.		
Four doors—Niehaus Bros. & Co.		
Two hundred and fifty feet grounds—Niehaus Bros. & Co.		
Sixteen feet astragal—Niehaus Bros. & Co.		
Twenty-four feet threshold—Niehaus Bros. & Co.		
Twenty-five feet beaded molding—Niehaus Bros. & Co.		
Three Tr. 2x3, 21-oz.—Niehaus Bros. & Co.		
One thousand feet spruce—Niehaus Bros. & Co.		38 00
Four hundred feet sugar pine—Niehaus & Co.		
Labor, as per July payroll		32 00
Five gallons carriage varnish—Heuter Bros. & Co.		17 50
Five gallons turpentine—Heuter Bros. & Co.		2 75
One gallon gasoline—Heuter Bros. & Co.		35
Five pounds lump pumice—Heuter Bros. & Co.		50
Five pounds beeswax—Heuter Bros. & Co.		1 75
Six sash tools—Heuter Bros. & Co.		1 00
Six fitches—Heuter Bros. & Co.		75
One duster, flat—Heuter Bros. & Co.		75
Three scraping tools—Heuter Bros. & Co.		1 35
One paint burner—Heuter Bros. & Co.		5 25

DISBURSEMENTS—Continued.

Five hundred pounds Pioneer lead—Whittier, Fuller & Co.	\$30 00
One hundred pounds Golden ocher—Whittier, Fuller & Co.	8 00
Fifty gallons boiled oil—Whittier, Fuller & Co.	36 25
Five gallons turpentine—Whittier, Fuller & Co.	2 60
Fifty pounds venetian red—Whittier, Fuller & Co.	2 25
One hundred pounds Prince's metallic—Whittier, Fuller & Co.	2 25
Five pounds pure raw sienna—Whittier, Fuller & Co.	65
Two and one half dozen pair butts—Dunham, Carrigan & Hayden Co.	75
Two and one half dozen cupboard locks—Dunham, Carrigan & Hayden Co.	12 50
One gross hat hooks—Dunham, Carrigan & Hayden Co.	1 91
One half dozen knob locks—Dunham, Carrigan & Hayden Co.	6 90
One half dozen L. P. butts—Dunham, Carrigan & Hayden Co.	2 48
One twelfth dozen dead locks—Dunham, Carrigan & Hayden Co.	1 75
Two dozen key blanks—Dunham, Carrigan & Hayden Co.	2 00
Case—Dunham, Carrigan & Hayden Co.	25
Painting—James Andrew	108 50
Carpenter work—William Hodgson	98 00
Labor, per month of August	54 80
Covering North Hall steps with zinc, as per contract—J. M. McNamara	99 35
Plastering in North Hall, per contract—H. L. Whitney	115 00
Plumbing in North Hall, per contract—J. M. McNamara	18 00
Ten gallons wax—F. M. Farwell	20 00
One tack hammer—Justinian Caire	25
Assorted files—Justinian Caire	1 50
Seven tripods—Thomas Day & Co.	70
One dozen burners—Thomas Day & Co.	50
Labor and expenses—Thomas Day & Co.	6 75
Five sockets—J. M. McNamara	60
Services of painter—John Andrew	24 50
Services of carpenter—William Hodgson	24 50
Services of carpenter—William Hodgson	94 50
Services of painter—John Andrew	91 00
Labor, for month of September	49 00
Eight automatic water-closets—Sanitary Plumbing Co.	\$240 00
Connections—Sanitary Plumbing Co.	35 00
Repairs and new basin—Sanitary Plumbing Co.	7 00
	\$282 00
Rebate on old closets	12 00
	270 00
One basin cock—J. M. McNamara	44 00
One $\frac{1}{2}$ -inch stop—J. M. McNamara	
One 1-inch stop—J. M. McNamara	
Twenty-two feet $\frac{1}{2}$ -inch pipe—J. M. McNamara	
Thirty-six feet 3-inch leader—J. M. McNamara	
Repairing closets—J. M. McNamara	254 48
Three hundred and seventy-seven yards cocoa matting—McGovern & Cahill	
Eighty-six yards B. B. carpet—McGovern & Cahill	118 25
One yard oilcloth—McGovern & Cahill	50
One yard oilcloth—McGovern & Cahill	50
Five yards B. B. carpet—McGovern & Cahill	6 88
One brush mat—McGovern & Cahill	2 50
Four Smyrna rugs—McGovern & Cahill	16 00
Three hundred pounds Pioneer lead—Whittier, Fuller & Co.	18 00
Forty pounds putty—Whittier, Fuller & Co.	1 00
Twenty gallons linseed oil—Whittier, Fuller & Co.	14 00
Ten gallons blackboard slating—Whittier, Fuller & Co.	30 00
Five gallons carriage varnish—Whittier, Fuller & Co.	20 00
One thousand feet 3x4 redwood—Henry W. Taylor	27 00
Five hundred feet 2x8 redwood—Henry W. Taylor	
One thousand feet 1x4x16 T. and G. pine—Henry W. Taylor	31 00
One thousand feet 2x12 redwood—Henry W. Taylor	18 00
Eight hundred and eighty feet 1x12x16 redwood—H. W. Taylor	29 04
One hundred feet 1x6 pine—Henry W. Taylor	1 80
One hundred and sixty-seven feet 1x8 redwood—H. W. Taylor	3 01
One hundred feet $1\frac{1}{2}$ x12x20 stepping—Henry W. Taylor	4 00
Mill work—Henry W. Taylor	2 00
One thousand shingles—Henry W. Taylor	2 00
Six bars castile soap—G. W. Armes	2 25

DISBURSEMENTS—Continued.

One and one third dozen dust brushes—G. W. Armes	\$9 33	
One and two thirds dozen floor brushes—G. W. Armes	25 00	
One half dozen chamois skins—G. W. Armes	2 75	
	\$37 08	
Less 15 per cent	5 55	\$31 53
Two dozen brooms—G. W. Armes	\$7 00	
One dozen dust pans—G. W. Armes	1 50	
Two dozen car dusters—G. W. Armes	18 00	
	\$26 50	
Less 20 per cent	5 30	21 20
One dozen coal hods—G. W. Armes	\$7 50	
One dozen fire shovels—G. W. Armes	1 85	
	\$9 35	
Less 40 per cent	3 74	5 61
One dozen base knobs—Pierce & Co.		70
Ten yards muslin—Raphael, Weill & Co.		1 50
Nine pounds detail paper—Edward Denny & Co.		1 10
Six hundred cubic feet gas—Oakland Gas Co.		1 65
One hundred and seventy feet redwood—Niehaus Bros. & Co.		6 80
One office chair—Jos. Fredericks & Co.		7 00
Two hundred pounds asphaltum—R. A. Kershaw		3 00
One thousand six hundred cubic feet gas—Oakland Gas Co.		4 40
One B. B. carpet—Schlueter & Volberg		12 50
Plumbing in North and South Halls—J. M. McNamara		16 00
One dozen night latches—Dunham, Carrigan & Hayden Co.		20 00
Four dozen key blanks—Dunham, Carrigan & Hayden Co.		3 25
One dozen wardrobe locks—Dunham, Carrigan & Hayden Co.		6 00
One dozen pair narrow butts—Dunham, Carrigan & Hayden Co.		40
Six gross screws—Dunham, Carrigan & Hayden Co.		1 02
One dozen pair brass hinges—Dunham, Carrigan & Hayden Co.		60
One dozen pair iron butts—Dunham, Carrigan & Hayden Co.		50
One gross brass screws—Dunham, Carrigan & Hayden Co.		39
One Cairo rug—C. M. Plum & Co. Upholstery Co.		21 50
One Damascus rug—C. M. Plum & Co. Upholstery Co.		16 00
Service of painter—James Andrew		84 00
One Bradford stove—M. De La Montanya		16 00
Twenty joints stove-pipe—M. De La Montanya		7 00
One corrugated elbow—M. De La Montanya		75
One bevel—M. De La Montanya		75
One ventilating tube—M. De La Montanya		1 00
Sheet zinc—M. De La Montanya		1 50
Iron fenders—M. De La Montanya		3 00
Damper and collar—M. De La Montanya		35
Labor putting up—M. De La Montanya		3 00
Service of carpenter—A. H. Broad		7 00
Labor, as per October payroll		54 00
Three 4-foot tables—Geo. H. Fuller		22 50
Three oak chairs—Geo. H. Fuller		18 00
Four library chairs—Geo. H. Fuller		15 00
Four bookcases—Geo. H. Fuller		30 00
Two flat top desks—Geo. H. Fuller		36 00
One bookcase—Geo. H. Fuller		18 00
One Cairo rug—C. M. Plum & Co. Upholstery Co.		21 50
One Bradford stove—M. De La Montanya		16 00
Sheet zinc—M. De La Montanya		1 50
Labor and cartage—M. De La Montanya		2 50
One thumble—J. W. Savage		40
Six key blanks—D. Siesbittel		1 50
Service of painter—James Andrew		5 00
Eighteen feet ash lumber—White Brothers		2 00
One door bell—Huntington-Hopkins Co.		2 00
Three fourths barrel lime—J. W. Savage		1 50
Eight hundred cubic feet gas—Oakland Gas Co.		2 20
One thousand one hundred cubic feet gas—Oakland Gas Co.		3 05
Services of painter—James Andrew		42 00
Labor for month of November		52 00
Services of painter—James Andrew		42 00

DISBURSEMENTS—Continued.

One hundred and fifty chairs, long rod—Cal. Furniture Mfg. Co.	\$250 00
Tables on arms of same—California Furniture Manufacturing Co.	112 50
Three thousand seven hundred cubic feet gas—Oakland Gas Co.	9 25
Five thousand cubic feet gas—Oakland Gas Co.	10 00
Labor for month of December	51 50
One top desk—Geo. H. Fuller	18 00
One bookcase—Geo. H. Fuller	18 00
One 4-foot table—Geo. H. Fuller	7 50
One chair—Geo. H. Fuller	9 00
Twenty sacks sawdust—Berkeley Planing Mill	3 00
Twelve pounds lead waste—Berkeley Lumber Yard	1 20
Two pounds fittings—Dalziel & Moller	30
One 1½-inch globe valve—Dalziel & Moller	1 95
One 1-inch globe valve—Dalziel & Moller	90
One union valve—Dalziel & Moller	40
One plug—Dalziel & Moller	10
Length stove-pipe—S. D. Thurston	30
Twenty-two feet S. G. hickory—Waterhouse & Lester	3 52
Repairing basin—J. M. McNamara	2 50
One dozen cast-steel calipers—Justinian Caire	8 50
Labor for month of January	52 00
One hundred feet chalk gutter—Niehaus Bros. & Co.	3 95
Three sets casters—Pierce & Co.	2 95
Stove-pipe and elbow—Jeffress, Mitchell & Co.	2 25
One mimeograph—Samuel Hill Co.	20 00
Eight and one third yards Brussels carpet—Schlueter & Volberg	12 50
Six and two thirds yards napier matting—Schlueter & Volberg	5 00
Two thousand nine hundred cubic feet gas—Oakland Gas Co.	7 25
Four thousand cubic feet gas—Oakland Gas Co.	10 00
Labor for month of February	48 00
Four bookcases, per agreement—Niehaus Bros. & Co.	280 00
One plain bookcase, per agreement—Niehaus Bros. & Co.	60 00
Thirty-six feet pine and cedar—Niehaus Bros. & Co.	6 40
Twenty-one feet hand rail—Niehaus Bros. & Co.	3 50
Two hundred feet cove—Niehaus Bros. & Co.	2 50
One Garland trap—J. M. McNamara	50
Solder and coal—J. M. McNamara	2 00
Help—J. M. McNamara	05
Two gate hooks and eyes—J. W. Savage	50
Two thumb latches—J. W. Savage	10
Two draw pulls—J. W. Savage	8 25
Moving and replacing stove, per contract—J. M. McNamara	248 00
Sixty-two days' labor on bell tower—R. McKillican	57 33
Lumber on bell tower—R. McKillican	12 14
Tinning on bell tower—R. McKillican	88 25
Mill work on bell tower—R. McKillican	9 30
Hardware on bell tower—R. McKillican	115 00
Hoisting bell on bell tower—R. McKillican	36 82
Painting on bell tower—R. McKillican	33 66
One thousand and twenty ft. surfaced redwood—Henry W. Taylor	2 50
Cartage and mill work—Henry W. Taylor	60 00
Four thousand feet redwood—Henry W. Taylor	16 00
One Bradford stove—M. De La Montanya	3 00
Ten joints stove-pipe—M. De La Montanya	65
One joint corrugated elbow—M. De La Montanya	25
One joint damper—M. De La Montanya	4 00
Labor and cartage—M. De La Montanya	12 00
One dozen Yale locks—Justinian Caire	1 20
One dozen bolt plates—Justinian Caire	10 25
Four thousand one hundred cubic feet gas—Oakland Gas Co.	75
Three joints stove-pipe—J. M. McNamara	25
One joint elbow—J. M. McNamara	1 00
Labor on same—J. M. McNamara	2 50
One light pendant—J. M. McNamara	1 00
Labor on same—J. M. McNamara	5 00
Wash tray and connections—J. M. McNamara	1 90
Two sets casters—Dunham, Carrigan & Hayden Co.	1 00
Hinges and lock—Justinian Caire	20
Lag screws—Justinian Caire	1 25
Rope—Justinian Caire	1 50
Repairing door check—F. D. Morrell	4 50
Forty feet ash—Waterhouse & Lester	30
One package string tags—Dutton & Partridge	

DISBURSEMENTS—Continued.

Cleaning and regulating clocks—A. Settern.....	\$2 50
Two hundred and seventy-six lights, assorted sizes—Whittier, Fuller & Co.....	
One gallon alcohol—Whittier, Fuller & Co.....	235 35
Fifty pounds putty—Whittier, Fuller & Co.....	
Five gallons turpentine—Whittier, Fuller & Co.....	
One glazier's diamond—Whittier, Fuller & Co.....	
Four kegs 8d nails—Dunham, Carrigan & Hayden Co.....	13 80
Two kegs 3d nails—Dunham, Carrigan & Hayden Co.....	6 60
Two kegs 6d nails—Dunham, Carrigan & Hayden Co.....	7 20
Seventy-five pounds brass castings—F. Baud.....	22 50
Ninety-eight pounds bell-metal castings—F. Baud.....	39 20
Ninety-two pounds brass castings—F. Baud.....	27 60
One map of France—B. Westermann & Co.....	6 50
One map of Spain—B. Westermann & Co.....	4 40
Five hundred pounds Paris white—Whittier, Fuller & Co.....	7 50
Fifty pounds E. W. glue—Whittier, Fuller & Co.....	12 50
Fifty pounds plaster of Paris—Whittier, Fuller & Co.....	1 50
One hundred pounds yellow ochre—Whittier, Fuller & Co.....	2 50
Twenty-five pounds venetian red—Whittier, Fuller & Co.....	75
Twenty-five pounds burnt umber—Whittier, Fuller & Co.....	3 00
Ten pounds ult. blue—Whittier, Fuller & Co.....	2 50
Three pounds lamp black—Whittier, Fuller & Co.....	1 05
One 6-inch kalsomine brush—Whittier, Fuller & Co.....	2 25
One 8-inch kalsomine brush—Whittier, Fuller & Co.....	3 50
One walnut case for trophies—E. Hook.....	33 50
Advertising for painting—Oakland "Enquirer".....	7 50
Advertising for painting—Oakland "Tribune".....	9 00
Advertising for painting—Oakland "Times".....	5 50
One dozen sash locks—J. W. Savage.....	1 50
One third dozen flush pulls—H. Rosekrans & Co.....	50
Repairing brush—E. Levenson.....	3 25
One half dozen lag screws—Savage Bros.....	15
One tape—Pierce Bros.....	1 50
Six door holders—C. F. Short.....	2 40
Proposals for painting—San Francisco "Chronicle".....	22 47
Proposals for painting—San Francisco "Examiner".....	15 40
Two brass hooks—Savage Bros.....	50
One bronze lock—Dunham, Carrigan & Hayden Co.....	3 50
One pair bronze butts—Dunham, Carrigan & Hayden Co.....	2 00
Four key blanks—Dunham, Carrigan & Hayden Co.....	50
Repairing closet—J. M. McNamara.....	1 50
Repairing waste pipe—J. M. McNamara.....	1 75
Repairing shower bath—J. M. McNamara.....	3 00
Time of plumber and helper—J. M. McNamara.....	4 00
One pair bronzed buckets—Savage Bros.....	1 00
Five gallons elastic paint—Whittier, Fuller & Co.....	12 50
Three lights—Whittier, Fuller & Co.....	11 10
Three hundred feet T. and G. cedar—Niehaus Bros. & Co.....	42 00
Two hundred and fifty-six feet molding—Niehaus Bros. & Co.....	
One 4-panel door—Niehaus Bros. & Co.....	
Painting on buildings—G. C. Gottung.....	6 00
Four globes—Jeffress, Mitchell & Co.....	2 00
Four ring holders—Jeffress, Mitchell & Co.....	1 00
Four hours labor—Jeffress, Mitchell & Co.....	2 00
Repairing telescope—J. Speak.....	1 50
Repairing roof of library—J. M. McNamara.....	4 00
Repairing two faucets in cottage—J. M. McNamara.....	1 50
Repairing one closet—J. M. McNamara.....	2 50
One light—Whittier, Fuller & Co.....	7 75
Two spools copper wire—Joseph McClain.....	40
Two thousand one hundred cubic feet gas—Oakland Gas Co.....	5 25
Three thousand four hundred cubic feet gas—Oakland Gas Co.....	8 50
Putting up and repairing leader—J. M. McNamara.....	4 30
Repairing roof and sewer—J. M. McNamara.....	5 70
Repairing trap in Gymnasium—J. M. McNamara.....	5 00
<hr/>	
To Water Supply.	
Labor for month of July.....	\$2 00
Labor for month of August.....	2 00
Labor for month of September.....	2 00
Water for June—Alameda Water Co.....	5 96
<hr/>	
\$6,087 10	

DISBURSEMENTS—Continued.

Water for September—Alameda Water Co.....	\$13 74
Labor for month of October.....	2 00
Water for October—Alameda Water Co.....	28 16
Labor for month of November.....	2 00
Surveying in Strawberry Cañon—W. G. Raymond.....	2 50
Two tracings—W. G. Raymond.....	4 00
Labor for month of December.....	2 00
State and county taxes.....	28 75
Town of Berkeley taxes.....	24 42
Fees on affidavits—A. B. Merrill.....	2 00
Services of engineer in examining site for reservoir—J. J. Cloud.....	100 00
Labor for month of January.....	2 00
Water for December and January—Alameda Water Co.....	67 96
Labor for month of February.....	2 00
Water for February—Alameda Water Co.....	18 60
One 2-inch cap—Alameda Water Co.....	25
Labor for month of March.....	2 00
Water for March—Alameda Water Co.....	28 35
Labor for month of April.....	2 00
Labor for month of May.....	2 00

\$346 69

To Advertising and Printing.

Printing six thousand seven hundred entrance examination papers—C. A. Murdock & Co.....	\$49 35
Printing two hundred copies "Finance Committee Report"—C. A. Murdock & Co.....	18 00
Advertising entrance examination—San Francisco "Bulletin".....	8 60
Advertising entrance examination—San Francisco "Call".....	8 00
Advertising entrance examination—San Francisco "Chronicle".....	9 80
Advertising entrance examination—San Francisco "Examiner".....	9 80
Advertising entrance examination—San Francisco "Alta California".....	7 00
Advertising entrance examination—San Francisco "Evening Post".....	7 00
Advertising entrance examination—Los Angeles "Times".....	4 25
Advertising entrance examination—Los Angeles "Herald".....	5 00
Advertising entrance examination—Los Angeles "Evening Express".....	4 50
Advertising entrance examination—Oakland "Tribune".....	7 50
Advertising entrance examination—Chico "Enterprise".....	3 00
Advertising entrance examination—Oakland "Times".....	7 50
Advertising entrance examination—Oakland "Enquirer".....	3 00
Advertising entrance examination—San Francisco "Report".....	7 00
Advertising entrance examination—Grass Valley "Tidings".....	4 00
Advertising entrance examination—Grass Valley "Union".....	4 00
Advertising entrance examination—Chico "Chronicle".....	2 50
Printing two hundred salary rolls—C. A. Murdock & Co.....	12 00
Printing release of mortgage—C. A. Murdock & Co.....	4 00
Printing proposed license agreement—C. A. Murdock & Co.....	4 50
Printing philosophy examination papers—C. A. Murdock & Co.....	8 00
Printing one thousand University interest receipts—William C. Brown.....	8 00
Advertising money loan—San Francisco "Chronicle".....	3 60
Advertising money loan—San Francisco "Examiner".....	2 10
Advertising money loan—San Francisco "Bulletin".....	2 65
Advertising money loan—San Francisco "Call".....	1 75
Advertising money loan—San Francisco "Post".....	1 50
Advertising money loan—San Francisco "Report".....	1 50
Calling meeting of Board—San Francisco "Chronicle".....	90
Calling meeting of Board—San Francisco "Alta California".....	2 00
Printing one hundred cards for Regents—C. A. Murdock & Co.....	2 00
Printing one thousand applications—C. A. Murdock & Co.....	22 00
Printing six thousand tickets and envelopes—C. A. Murdock & Co.....	39 00
Printing two thousand announcements of courses—C. A. Murdock & Co.....	9 50
Advertising entrance examination—"Morning Times".....	7 00

301 80

To Telegraphing and Expressage.

Expressage—Wells, Fargo & Co.....	\$210 12
Expressage—Patterson & Co.....	92 30
Freight—Southern Pacific Co.....	19 41

DISBURSEMENTS—Continued.

Telegraphing—Western Union Telegraph Co.....	\$36 54	
Exchange, etc., on warrants, bonds, etc.	129 01	
Money order and commission.....	4 95	
		\$492 33
<i>To Official and Lecturing Expenses.</i>		
Traveling expenses of Secretary	\$58 80	
Traveling expenses of Mr. Letts.....	63 30	
Traveling expenses of Professor Howard	150 80	
Traveling expenses of Professor Slate.....	174 55	
Traveling expenses of Professor Stringham	111 50	
Traveling expenses of Professor Jones.....	148 70	
Traveling expenses of Professor Gayley.....	26 05	
Traveling expenses of Professor Clarke.....	24 30	
Traveling expenses of Professor Bradley.....	92 25	
Traveling expenses of Professor Edwards.....	19 60	
Traveling expenses of Dr. Senger.....	72 20	
Traveling expenses of Mr. Iddins.....	2 35	
Traveling expenses of Professor O'Neill	24 50	
Traveling expenses of Mr. Phipps.....	2 35	
Traveling expenses of Janitor.....	20	
Extra clerical services.....	10 55	
		982 00
<i>To Stationery.</i>		
Supplies for Secretary's office	\$125 60	
Supplies for Recorder's office	97 85	
Supplies for President's office	29 80	
Supplies for Land office.....	2 50	
Supplies for English Department.....	1 80	
		257 55
<i>To Land Administration.</i>		
Rebate on interest to John G. Busch.....	\$25 55	
Traveling expenses of E. A. Norton from May 25, 1889, to August 9, 1889.....	252 35	
Services during that time—E. A. Norton.....	76 63	
Clerical services—Walter C. Allen.....	20 00	
Fees on money orders—N. B. Byrne.....	15	
Two boxes seals—H. S. Crocker & Co.....	80	
Returned money order—John Mullin	22 40	
Postage stamps—N. B. Byrne.....	50 00	
Examination of records—J. R. Young.....	4 20	
Quitclaim blanks—J. J. Evans.....	4 50	
Expressage—Wells, Fargo & Co.....	3 00	
Expressage—Wells, Fargo & Co.....	30	
Searching records—John B. Mhoon.....	5 00	
Certified copy of list—J. H. Polk.....	1 35	
One blank book—Cunningham, Curtiss & Welch.....	3 50	
		469 73
<i>To Incidental Expenses.</i>		
Premium on bond of Secretary—Pacific Surety Co.	\$50 00	
One bag and marking—Mann & Benedict	10 00	
Copying agreement with Western Union Telegraph Co.—Runge & Elliott.....	1 15	
Copying Chapin contract—G. Mahoney.....	1 50	
Notary's fees, acknowledging two releases—A. B. Merrill	2 00	
Notary's fees, acknowledging one release—A. B. Merrill.....	1 00	
Notary's fees, acknowledging one release—A. B. Merrill.....	1 00	
Notary's fees, acknowledging one release—A. B. Merrill.....	1 00	
Copying agreement—Julia Harris.....	4 10	
Copying agreement—Runge & Elliott.....	60	
		72 35
<i>To College Celebrations.</i>		
Six thousand cards, Commencement Exercises—C. A. Murdock & Co.....	\$21 00	
Six thousand envelopes, Commencement Exercises—C. A. Murdock & Co.....	23 00	
Filling out thirty-nine diplomas—J. R. Southern.....	19 50	
Addressing and mailing invitations—W. W. Deamer.....	10 50	
Two pieces ribbon—Kohlberg, Strauss & Frohman.....	2 70	

DISBURSEMENTS—Continued.

Meals for musicians—J. S. Wright.....	\$9 50	
Forty-three diplomas—Schmidt Label and Lithograph Co.....	64 50	
One thousand programmes for Class Day—Louis Dreka.....	50 00	
Four hundred dance programmes for Class Day—Louis Dreka.....	34 00	
		\$234 70
<i>To Postage.</i>		
Postage for Secretary's office.....	\$112 00	
Postage for Recorder's office.....	370 00	
		482 00
<i>To Fuel.</i>		
Seventy-eight tons Brymbo coal—T. H. Henderson.....	\$776 10	
Eight tons Seattle coal—T. H. Henderson.....	67 60	
Three tons one thousand one hundred and twenty pounds anthracite coal—T. H. Henderson.....	53 37	
Six tons one thousand one hundred and twenty pounds Well- ington coal—T. H. Henderson.....	71 50	
Fifteen gunny sacks—T. H. Henderson.....	1 50	
Seventy grain sacks—T. H. Henderson.....	3 50	
		973 57
<i>To Insurance.</i>		
Premiums on \$432,330—J. C. Mitchell & Son.....		4,323 30
<i>To Salaries.</i>		
Administration.....		10,223 99
To amount reserved for permanent improvements.....		25,000 00
		\$101,205 89

REPORT

OF THE

Board of Trustees of State Normal Schools

FOR THE

Years ending June 30, 1889, and June 30, 1890.



SACRAMENTO:

STATE OFFICE, : : : : : J. D. YOUNG, SUPT. STATE PRINTING.

1890.

REPORT OF TRUSTEES OF STATE NORMAL SCHOOL, SAN JOSÉ.

OFFICE OF THE BOARD OF TRUSTEES OF THE }
STATE NORMAL SCHOOL AT SAN JOSÉ, November, 1890. }

To his Excellency R. W. WATERMAN, Governor:

SIR: We have the honor to submit the following detailed report of receipts and expenditures for carrying on the Normal School under our charge, for the fortieth and forty-first fiscal years. We ask a careful scrutiny of this report, believing it will afford the best guarantee of an economical expenditure of future appropriations.

The number in attendance upon the school is increasing annually, probably owing to the increased demand for teachers. For the next two fiscal years, to enable the school to do well the work for which it is designed, the following appropriations will be needed:

For current expenses	\$82,000
For library	2,000
For care of grounds	4,000
For painting building	1,500
For repairing building	6,000
For museum	500
For manual training	1,000

For a statement of the scholastic work of the school, we respectfully refer you to the catalogue and to the reports of the Principal herewith submitted. We particularly call attention to that part of the Principal's last report in which he speaks of the urgent necessity for the erection of a building especially for the Training Department.

We have the honor to be, very respectfully, your obedient servants,

RALPH LOWE,
President Board of Trustees.

RUTH ROYCE, Secretary.

REPORT OF PRINCIPAL OF SAN JOSE NORMAL SCHOOL.

To the Board of Trustees of the State Normal School at San José:

GENTLEMEN: The work of the school year just closed has been hardly so satisfactory as the work of the preceding year. The inevitable friction attendant upon any radical change in course of study or terms, we have felt in its full force. And yet the school has done good work.

On the twentieth of December diplomas were granted to fifty-eight pupils, who at that time had completed the old course of study. The class was a strong one, and has done and will do the school credit. No public graduating exercises were held, and all were pleased at the quiet, unostentatious manner in which the diplomas were conferred. Of this class of fifty-eight, forty-six are now teaching or have taught since graduation, having readily secured positions. Five we know have not taught, in most cases because they did not desire immediately to begin work; and from seven we have no report.

We present now a class of seventy-one, who have done their work well, and will, we fully believe, work with zeal and intelligence in the schools of the State.

It is perhaps remarkable how large a per cent of our graduates enter at once upon the work of teaching. Of the sixty-one graduated one year ago, all but four have taught or are now teaching. From one of the four we have no report.

STATISTICS.

There have applied for admission to the school during the year 253 candidates, viz.: 203 in September, 47 in January, and 3 in April, at the opening of the three respective terms. Of these, 172 were admitted to some class in the Normal School, and 81 were rejected or withdrew during the examination. For the year, the entire enrollment has been in the various classes: Senior, 211; Middle, 136; Junior, 220; Training Department, 218. The total enrollment in all classes, 785; in the Normal Classes, 567; average for the year in Normal Classes, 472.

The highest number enrolled in the Normal Classes was in September, when the enrollment reached 509. The enrollment for the closing month, June, has been 415. During the year there has been representatives in the school from forty-seven counties in the State, distributed as follows:

Alameda.....	49	San Benito.....	11
Amador.....	3	San Bernardino.....	1
Butte.....	8	San Francisco.....	26
Calaveras.....	2	San Joaquin.....	2
Colusa.....	3	San Luis Obispo.....	10
Contra Costa.....	15	San Mateo.....	3
El Dorado.....	8	Santa Barbara.....	1
Fresno.....	9	Santa Clara.....	195
Humboldt.....	14	Santa Cruz.....	12
Inyo.....	1	Shasta.....	4
Kern.....	1	Sierra.....	4
Lake.....	6	Siskiyou.....	8
Lassen.....	3	Solano.....	11
Marin.....	7	Sonoma.....	9
Mariposa.....	2	Stanislaus.....	2
Mendocino.....	7	Sutter.....	4
Merced.....	11	Tehama.....	1
Modoc.....	2	Trinity.....	2
Monterey.....	9	Tulare.....	7
Napa.....	15	Tuolumne.....	2
Nevada.....	11	Ventura.....	1
Placer.....	11	Yolo.....	7
Plumas.....	1	Yuba.....	2
Sacramento.....	18		

Counties not represented: Alpine, Del Norte, Los Angeles, Mono, and San Diego.

This representation, in a State where the distances traveled are so great, is really surprising, and shows more clearly than any argument that this is a *State* school. True, the representation from Santa Clara County is 34 per cent of the enrollment, but this is not surprising. This is a large county, and the patronage of all such schools is drawn largely from a radius of forty or fifty miles. Many residing in Santa Clara County come from many miles away.

In addition to those enrolled from California, we have had from Colorado, 1; Honolulu, 2; Idaho, 3; Illinois, 1; Michigan, 1; Montana, 1; Nebraska, 1; Nevada, 6; Nova Scotia, 1; Oregon, 1; Pennsylvania, 1; Utah Territory, 1; Washington Territory, 3; Wisconsin, 3. These pupils are here, usually, expecting to teach in California, and all sign the condition made on entering.

MANUAL TRAINING.

During the year the different departments have worked harmoniously. I am glad to be able to report that the Industrial Department has become a marked success. Since the Board authorized the employment of a skilled mechanic to take charge of the work and give instruction, the interest has greatly increased, and the results are quite satisfactory. With so large a school it is impossible to give the manual training work to all pupils. Two Middle Classes and a part of a class from the Training Department have had much valuable training. The additional expense of the department is very small when compared with the desirable results attained.

In the Training Department proper, considerable attention has been given to instruction in clay modeling, as well as in needlework. To this work the pupils come as to an amusement, and it is therefore a respite from, rather than an addition to their study tasks. It also tends to the development of special talent—talent that in the near future may become valuable to society.

COURSE OF STUDY.

Referring to the changes made in terms and course of study, at the joint meeting of the Boards at Los Angeles, about a year ago, and the modifications made at the meeting at Chico, this year, I beg to report:

The year's trial of three terms a year, and only one set of classes, has but confirmed the opinion of the Faculty that it will be far better for this school to return to the plan of two terms a year, and also to the plan of carrying on two sets of classes. They believe the old plan best accommodates those who desire to avail themselves of the advantages of the school, and that it, also, enables the school to do better work for those who come. They therefore respectfully ask that the calendar, as now submitted, be adopted, and that the course of study, as herewith presented, be prescribed for this school. The calendar provides for two terms of twenty weeks each. The Course of Study, though changed somewhat in the order of succession of studies, is in general accord with the course as finally modified by the Boards in joint session at Chico.

CLOSING REMARKS.

It is well known to you, gentlemen, that for a portion of the year I have been unable to discharge the duties pertaining to my position. When I came to a full recognition of this fact, I asked for, and received, three months' leave of absence, without salary. During this period the duties of the principalship were satisfactorily discharged by the Vice-Principal, Professor Childs. I need hardly suggest that for this period he should receive the salary of Principal.

Being convinced that the best interests of the school, as well as my own interest, demanded that I should no longer hold a position the duties of which I was unable to perform, on the sixth day of April I addressed a communication to the Chairman of the Board of Trustees, asking that my resignation, which has for some time been at their disposal, should be accepted, to take effect at the close of the present school year.

In closing my connection with you, gentlemen, it will not be out of place if I refer briefly to our past work together.

On the first day of October, 1872, having been previously notified of my election to a position in the school, I reported to the Principal, Dr. Wm. T. Lucky, and was assigned to duty. On the fifth day of August, following, to my great surprise, I received official notice of my election as Principal of the school, and on the Tuesday morning following, assumed the duties of the position. I have, therefore, been connected with the school for nearly seventeen years, and have held the position of Principal for sixteen years.

During all this time my leading desire has been to build up and strengthen the school. To this work I have given whatever of ability I possess, and I can but be gratified at the results attained.

The work, although at times severe, has always been pleasant, and I can think of but two contingencies that would lead me willingly to give up a work that has claimed so much of my thought, and that I have so heartily enjoyed. One of these is an indication, upon your part, of a desire that the position should be vacated. But your continued support, your many warm expressions of good will, and your appreciation

of the work of the school, give me the assurance that you have neither felt nor indicated such a desire.

The other contingency is my own ill health. This, I am sure you will all understand, is imperative.

In returning to you the high trust which, years ago, you gave into my hands, I desire, in this formal manner, to express to you my thanks for your support and sympathy, and, I think I may add, your personal friendship. If the school has been a success, it is because you have ever given an intelligent support to all reasonable efforts to make it better, and because you have provided for and sustained all needed changes and improvements. The Faculty you have given me have been well selected, and they, too, have worked earnestly and faithfully to make the school what it should be. In the school and in its graduates I shall never lose my deep interest. May they go on achieving still greater good.

In conclusion, allow me to say to you, and, through you, to the Faculty, to the Alumni, and to the pupils yet remaining in the school, a *good bye* in its old time meaning, "God be with you."

I am, very respectfully, your obedient servant,

CHAS. H. ALLEN,
Principal.

SAN JOSÉ, June, 1889.

REPORT OF TRUSTEES OF STATE NORMAL SCHOOLS.

FINANCIAL REPORT

Of the State Normal School, San José, Cal., for the Fortieth Fiscal Year, ending June 30, 1889.

Date of Auditing.	No. of Voucher		Dr.	Cr.
1888.		Balance of appropriation from thirty-ninth fiscal year, as per last report	\$2 06	
		Balance in Tuition Fund from thirty-ninth fiscal year, as per last report	1,378 95	
		Amount of appropriation for fortieth fiscal year	39,000 00	
		Amount of tuition collected for fortieth fiscal year	3,480 50	
		Amount of library receipts, piano rent, etc.	150 00	
July 26		Paid for salaries for July, 1888		\$2,545 40
July 26	T. 1	Paid for payroll on grounds, July, 1888		270 00
Aug. 28		Paid for salaries for August, 1888		2,705 40
Aug. 28	A. 1	Paid L. P. Hansen, Janitor supplies		8 90
Aug. 28	A. 2	Paid L. Aubert, cleaning and laying carpet		22 96
Aug. 28	T. 2	Paid for payroll on grounds, August, 1888		268 75
Aug. 28	T. 3	Paid Presho Bros., wood		225 00
Aug. 28	T. 4	Paid S. J. Foundry, repairs to engine		89 60
Aug. 28	T. 5	Paid J. Boschken, hardware		1 25
Aug. 28	T. 6	Paid S. C. V. M. & L. Co., skylights		8 63
Aug. 28	T. 7	Paid Davis & Co., hardware		4 10
Aug. 28	T. 8	Paid Farmers Union, supplies		28 57
Oct. 1		Paid for salaries for September, 1888		2,800 40
Oct. 1	A. 3	Paid Daunes & Van Doren, coal		1,094 22
Oct. 1	A. 4	Paid C. F. Weber & Co., desks		37 34
Oct. 1	A. 5	Paid Sterling Furniture Co., desks		17 55
Oct. 1	A. 6	Paid E. L. Rugg, school apparatus		25 00
Oct. 1	A. 7	Paid F. Happersberger, tools for Training Department		50 00
Oct. 1	A. 8	Paid Margaret E. Schallenberger, apparatus for Training Department		32 45
Oct. 1	A. 9	Paid L. Lion, carpet for platforms		22 00
Oct. 1	A. 10	Paid McNeil Bros., bookbinding and printing		9 65
Oct. 1	A. 11	Paid T. K. Black & Co., polish		2 63
Oct. 1	A. 12	Paid C. H. Allen, postage and freight		17 30
Oct. 1	A. 13	Paid sundry papers, advertising		22 25
Oct. 1	T. 9	Paid for payroll on grounds, September, 1888		270 50
Oct. 1	T. 10	Paid R. S. Thompson, wood		176 00
Oct. 1	T. 11	Paid P. J. Maguire, freight		26 60
Oct. 1	T. 12	Paid Presho Bros., redwood blocks		18 00
Oct. 1	T. 13	Paid Chas. Oeckel, hay		34 40
Oct. 1	T. 14	Paid J. A. Belloli, supplies		12 71
Oct. 1	T. 15	Paid William Grey, repairing engine		2 50
Oct. 29		Paid for salaries for October, 1888		2,800 40
Oct. 29	A. 14	Paid T. Soper, carpenter work and material		26 35
Oct. 29	A. 15	Paid Daniel McGinley, painting		20 25
Oct. 29	A. 16	Paid Peter Decker, labor		4 00
Oct. 29	A. 17	Paid S. H. Wagener, drugs		4 50
Oct. 29	A. 18	Paid Sunset Telephone Co., repairing apparatus		14 50
Oct. 29	T. 16	Paid for payroll on grounds, October, 1888		268 75
Oct. 29	T. 17	Paid S. H. Wagener, drugs		3 15
Nov. 28		Paid for salaries for November, 1888		2,800 40
Nov. 28	A. 19	Paid E. B. Lewis, stationery		176 78
Nov. 28	A. 20	Paid E. H. Guppy & Son, stationery		44 63
Nov. 28	A. 21	Paid Charles C. Gerry, blackboard erasers		88 40
Nov. 28	A. 22	Paid C. H. Allen, freight and hauling		7 55
Nov. 28	A. 23	Paid H. S. Crocker & Co., mimeograph and supplies		27 25
Nov. 28	A. 24	Paid the John Stock Sons, stove, pipe, etc.		19 05
Nov. 28	A. 25	Paid Tureman & Judah, mirrors		6 00
Nov. 28	A. 26	Paid L. Lion, felt paper for herbarium		5 00
Nov. 28	A. 27	Paid T. J. Rivers, labels		5 00
Nov. 28	A. 28	Paid R. S. Thompson, wood		44 00
Nov. 28	A. 29	Paid T. K. Black & Co., supplies		13 70
Nov. 28	T. 18	Paid for payroll on grounds, November, 1888		244 05
Nov. 28	T. 19	Paid Morgan Miles, seed		60 00
Nov. 28	T. 20	Paid R. S. Thompson, wood		22 90
Nov. 28	T. 21	Paid Main & Brewster, wood		5 90
Dec. 24		Paid for salaries for December, 1888		2,760 81

FINANCIAL REPORT—Continued.

Date of Auditing.	No. of Voucher		Dr.	Cr.
Dec. 24.	A. 30	Paid H. W. A. Nahl, diplomas.....		\$84 00
Dec. 24.	A. 31	Paid Bertha Warren, filling diplomas.....		28 50
Dec. 24.	A. 32	Paid E. B. Lewis, stationery.....		99 67
Dec. 24.	A. 33	Paid A. Triant & Co., manilla paper.....		9 60
Dec. 24.	A. 34	Paid McNeil Bros., postals and printing.....		9 35
Dec. 24.	A. 35	Paid S. C. V. M. & L. Co., tables and racks.....		58 00
Dec. 24.	A. 36	Paid George Denne, cases for specimens.....		9 00
Dec. 24.	A. 37	Paid T. Soper, carpenter work on tables and apparatus.....		35 60
Dec. 24.	A. 38	Paid Mrs. A. E. Bush, Curator, museum supplies.....		27 85
Dec. 24.	A. 39	Paid Ruth Royce, Secretary, postage, express, etc., six months.....		49 35
Dec. 24.	A. 40	Paid S. H. Wagener, chemicals.....		20 37
Dec. 24.	A. 41	Paid F. Kuchenbeiser & Son, grate bars, etc.....		43 65
Dec. 24.	A. 42	Paid Harvey & Graves, air cocks.....		4 20
Dec. 24.	A. 43	Paid C. F. Willey, slating and putting on.....		29 00
Dec. 24.	A. 44	Paid Sunset Telephone Co., box rent, six mo's.....		15 00
Dec. 24.	A. 45	Paid John Goetz, sawing wood.....		4 00
Dec. 24.	T. 22	Paid for payroll on grounds, December, 1888.....		259 25
Dec. 24.	T. 23	Paid J. C. Corcoran, water pipes, etc.....		352 30
Dec. 24.	T. 24	Paid S. C. V. M. & L. Co., skylights.....		51 00
Dec. 24.	T. 25	Paid Milton Campbell, repairing engine, etc.....		35 80
Dec. 24.	T. 26	Paid J. Boschken, hardware and tools.....		14 10
Dec. 24.	T. 27	Paid F. Kuchenbeiser & Son, repairing tools.....		13 50
Dec. 24.	T. 28	Paid D. C. Dunn, painting signs.....		4 50
Dec. 24.	T. 29	Paid John Goetz, sawing wood.....		4 00
Dec. 24.	T. 30	Paid Geo. B. McKee & Co., glass, setting, etc.....		12 10
1889.				
Jan. 24.		Paid for salaries for January, 1889.....		2,737 90
Jan. 24.	A. 46	Paid Sterling Furniture Co., desks and freight.....		43 80
Jan. 24.	A. 47	Paid S. J. Furniture Mfg. Co., chairs and stools.....		41 00
Jan. 24.	A. 48	Paid S. J. Gas Co., gas, six months.....		65 10
Jan. 24.	A. 49	Paid Geo. B. McKee & Co., setting glass, etc.....		9 10
Jan. 24.	A. 50	Paid T. K. Black & Co., Janitor supplies.....		2 60
Jan. 24.	A. 51	Paid Frank E. Smith, cleaning clocks.....		3 50
Jan. 24.	A. 52	Paid C. F. Willey, slating.....		3 00
Jan. 24.	A. 53	Paid Margaret E. Schallenberger, apparatus.....		23 27
Jan. 24.	A. 54	Paid Daunes & Van Doren, coal.....		18 00
Jan. 24.	T. 31	Paid for payroll on grounds, January, 1889.....		187 00
Jan. 24.	T. 32	Paid Farmers Union, supplies.....		34 79
Jan. 24.	T. 33	Paid C. R. Hanaford, hay.....		16 34
Jan. 24.	T. 34	Paid J. A. Belloli, supplies.....		10 43
Jan. 24.	T. 35	Paid A. Greeninger, repairing cart.....		6 00
Jan. 24.	T. 36	Paid H. Messing & Son, repairing harness.....		1 70
Feb. 28.		Paid for salaries for February, 1889.....		2,560 40
Feb. 28.		Paid Ruth Royce, services as Secretary, six mo's.....		75 00
Feb. 28.		Paid for payroll on grounds, February, 1889.....		185 00
Feb. 28.	A. 55	Paid E. B. Lewis, stationery.....		138 58
Feb. 28.	A. 56	Paid S. C. V. M. & L. Co., desks, etc.....		94 42
Feb. 28.	A. 57	Paid Chas. Fisher & Co., brooms.....		3 50
Feb. 28.	A. 58	Paid sundry papers, advertising Training Department.....		9 10
Feb. 28.	A. 59	Paid T. Soper, carpenter work and material.....		25 30
Feb. 28.	T. 37	Paid C. W. Childs, expenses spraying trees.....		53 70
Feb. 28.	T. 38	Paid R. D. Fox, trees.....		8 25
Mar. 28.		Paid for salaries for March, 1889.....		2,662 90
Mar. 28.		Paid for payroll on grounds, March, 1889.....		187 50
Mar. 28.	A. 60	Paid J. C. Corcoran, plumbing repairs.....		109 45
Mar. 28.	A. 61	Paid Sterling Furniture Company, desks.....		12 80
Mar. 28.	A. 62	Paid T. Soper, carpenter work and material.....		15 50
Mar. 28.	A. 63	Paid Kindergarten Supply Co., material for industrial training.....		11 51
Mar. 28.	A. 64	Paid T. K. Black & Co., supplies.....		7 15
Mar. 28.	A. 65	Paid Steve Chaize, brass work.....		5 00
Mar. 28.	A. 66	Paid Cunningham, Curtiss & Welch, drawing paper.....		10 60
Mar. 28.	T. 39	Paid C. R. Hanaford, hay.....		16 94
Mar. 28.	T. 40	Paid John Stock Sons, repairs.....		8 25
Mar. 28.	T. 41	Paid J. A. Belloli, supplies.....		3 65

FINANCIAL REPORT—Continued.

Date of Auditing.	No. of Voucher		Dr.	Cr.
April 25		Paid for salaries for April, 1889		\$2,962 90
April 25	A. 67	Paid D. Mencarini, plaster casts		45 00
April 25	A. 68	Paid S. C. V. M. & L. Co., lumber		33 91
April 25	A. 69	Paid J. Boschken, hardware and tools		17 10
April 25	A. 70	Paid S. J. Foundry, track for heliostat		18 75
April 25	A. 71	Paid S. H. Wagener, chemicals		3 50
April 25	A. 72	Paid Frank E. Smith, repairing gong		4 00
April 25	A. 73	Paid O. A. Hale & Co., toweling		15 00
April 25	A. 74	Paid H. Messing & Co., feather dusters		8 00
April 25	A. 75	Paid Calice & Hutchison, soap		2 00
April 25	A. 76	Paid Mrs. A. C. Allen, washing towels		3 00
April 25	A. 77	Paid C. F. Weber & Co., Appleton's chart		15 00
April 25	A. 78	Paid John P. Naas, carpenter work		31 10
April 25		Paid Ralph Lowe, traveling expenses to Chico, joint Board meeting		44 80
April 25		Paid T. Ellard Beans, traveling expenses to Chico, joint Board meeting		44 80
April 25		Paid L. Archer, traveling expenses to Chico, joint Board meeting		44 80
April 25		Paid T. H. Laine, traveling expenses to Chico, joint Board meeting		44 80
April 25	T. 42	Paid for payroll on grounds, April, 1889		192 00
April 25	T. 43	Paid F. Kuchenbeiser & Son, repairing tools		5 75
April 25	T. 44	Paid Farmers Union, supplies		1 05
May 29		Paid for salaries for May, 1889		2,962 90
May 29	A. 79	Paid Milton Campbell, plumbing, repairing, and hardware		32 40
May 29	A. 80	Paid J. P. Naas, carpenter work		30 85
May 29	A. 81	Paid P. W. Nahl, diplomas		10 00
May 29	A. 82	Paid A. Friant & Co., manilla paper		9 60
May 29	A. 83	Paid Educational Publishing Co., charts		6 00
May 29	A. 84	Paid E. B. Lewis, stationery		7 17
May 29	A. 85	Paid Mrs. A. C. Allen, washing towels		7 50
May 29	T. 45	Paid for payroll on grounds, May, 1889		347 00
May 29	T. 46	Paid Farmers Union, hose, couplings, etc.		154 75
May 29	T. 47	Paid John Stock Sons, hose		125 00
May 29	T. 48	Paid Milton Campbell, sprinklers, etc.		55 00
May 29	T. 49	Paid C. R. Hanaford, hay		11 55
May 29	T. 50	Paid W. W. Lipe, sawing wood		3 60
May 29	T. 51	Paid Laura Bethell, decorations		5 20
May 29	T. 52	Paid Chas. Grant, wood		57 60
June 21		Paid for salaries for June, 1889		3,012 90
June 21	A. 86	Paid Bertha Warner, filling diplomas		36 00
June 21	A. 87	Paid Mrs. A. E. Bush, museum expenses		28 85
June 21	A. 88	Paid C. H. Allen, traveling expenses		15 55
June 21	A. 89	Paid J. P. Naas, carpenter work		30 00
June 21	A. 90	Paid J. Boschken, tools and hardware		20 50
June 21	A. 91	Paid Geo. B. McKee & Co., varnish, etc.		8 00
June 21	A. 92	Paid O. A. Hale & Co., cloth for screen		2 10
June 21	A. 93	Paid G. Schoof, supplies for molding		5 00
June 21	A. 94	Paid Mrs. Lizzie P. Wilson, supplies		10 60
June 21	A. 95	Paid Mary P. Adams, supplies		7 75
June 21	A. 96	Paid Margaret E. Schallenberger, supplies		21 90
June 21	A. 97	Paid A. Steiger Sons, molding clay		15 00
June 21	A. 98	Paid Mrs. A. C. Allen, washing towels		7 50
June 21	A. 99	Paid W. T. Garratt & Co., pumps for buildings and grounds		802 00
June 21	A. 100	Paid C. H. Allen, freight and hauling on pumps		10 08
June 21	A. 101	Paid Milton Campbell, fitting and setting up pumps		167 20
June 21	T. 53	Paid for payroll on grounds, June, 1889		275 75
June 21	T. 54	Paid Main & Co., wood		72 00
June 21	T. 55	Paid Chas. Grant, wood		44 80
June 21	T. 56	Paid Milton Campbell, hose nipples		5 80
June 21	T. 57	Paid Teachers' Training Department expenses, Washington inaugural celebration		10 00
July 2		Paid C. W. Childs, extra services as Principal, three months		300 00
July 2		Paid Ruth Royce, services as Secretary, six months		75 00

FINANCIAL REPORT—Continued.

Date of Auditing.	No. of Voucher		Dr.	Cr.
July 2	A. 102	Paid S. C. V. M. & L. Co., lumber.....		\$56 16
July 2	A. 103	Paid S. J. Gas Co., gas six months.....		33 00
July 2	A. 104	Paid Sunset Telephone Co., box rent six months.....		15 00
July 2	A. 105	Paid McNeil Bros., commencement printing.....		19 75
July 2	A. 106	Paid C. H. Allen, commencement expenses.....		15 65
July 2	A. 107	Paid A. R. Denike, tuning pianos.....		8 00
July 2	A. 108	Paid Geo. Denne, frame.....		3 00
July 2	T. 58	Paid E. Main & Co., wood.....		12 00
July 2	T. 59	Paid C. R. Hanaford, hay.....		14 33
July 2	T. 60	Paid J. A. Belloli, barley.....		6 55
July 2	T. 61	Paid David Walsh, blacksmithing.....		10 35
July 2	T. 62	Paid Ruth Royce, Secretary, postage, express, etc., six months.....		91 75
July 2	T. 63	Paid McNeil Bros., paper.....		4 15
July 2	T. 64	Paid National Bank of D. O. Mills & Co., for- warding warrants.....		5 00
July 2	T. 65	Paid W. T. Garratt & Co., castings for pumps.....		59 33
July 2	T. 66	Paid F. Kuchenbeiser & Son, blacksmithing.....		13 50
July 2	T. 67	Paid J. P. Naas, carpenter work.....		28 55
		Total amount expended.....		\$43,748 38
		Balance in Tuition Fund at close of fortieth fiscal year.....		263 13
		Totals.....	\$44,011 51	\$44,011 51

SUMMARY OF ABOVE REPORT.

		Dr.	Cr.
Total income for fortieth fiscal year.....		\$44,011 51	
Paid for salaries.....	\$33,762 71		
Paid for stationery.....	511 73		
Paid for bookbinding and printing.....	8 05		
Paid for furniture and apparatus.....	893 41		
Paid for fuel and gas.....	1,260 52		
Paid for general supplies.....	436 84		
Paid for repairs and improvements.....	351 46		
Paid for miscellaneous expenses.....	588 90		
Total expended for support of school.....			\$37,813 62
Paid for payrolls on grounds.....	\$2,953 55		
Paid for fuel for engine.....	668 40		
Paid for repairs to engine and tools.....	178 45		
Paid for general supplies for grounds.....	281 00		
Paid for spraying trees.....	53 70		
Paid for seeds and trees.....	68 25		
Paid for water pipes, hose, and sprinklers.....	692 85		
Paid for pumps, castings, and setting.....	1,038 56		
Total expended for care and improvement of grounds.....			\$5,934 76
Balance in Tuition Fund.....			263 13
Totals.....		\$44,011 51	\$44,011 51

SPECIAL APPROPRIATION FOR THE USE OF LIBRARY.

Date of Auditing.	No. of Voucher		Dr.	Cr.
1888.		Amount of appropriation fortieth year.....	\$1,000 00	
		Balance of appropriation from thirty-ninth year, as per last report.....	98 35	
Oct. 1..	1	Paid A. Waldteufel, Encyclopædia Britannica, Vol. 23.....		\$10 25
Oct. 1..	2	Paid H. A. Saxe, atlas.....		7 75
Oct. 1..	3	Paid Mrs. Kate H. Keese, agent, book.....		2 75
Oct. 29..	4	Paid E. H. Guppy & Son, readers.....		5 75
Oct. 29..	5	Paid F. A. Taylor, subscription to periodicals.....		54 70
Dec. 24..	6	Paid Van Antwerp, Bragg & Co., text-books.....		74 00
Dec. 24..	7	Paid Alden Publishing Co., books.....		10 49
Dec. 24..	8	Paid the J. Dewing Co., books.....		5 00
Dec. 24..	9	Paid McNeil Bros., bookbinding.....		9 95
1889.				
Jan. 24..	10	Paid McNeil Bros., bookbinding.....		36 30
Jan. 24..	11	Paid A. Waldteufel, Encyclopædia Britannica, Vol. 24.....		10 25
Feb. 28..	12	Paid C. W. Cutler, agent, books.....		12 00
April 25..	13	Paid McNeil Bros., bookbinding.....		29 05
April 25..	14	Paid Mrs. Belle Chandler, agent, "Panorama of Nations".....		5 50
April 25..	15	Paid History Co., 4 vols. Bancroft's History.....		22 00
May 29..	16	Paid E. B. Lewis, books.....		124 08
May 29..	17	Paid E. W. Maynard, assignee, books.....		57 97
May 29..	18	Paid Mrs. M. Hardenbrook, agent, "Blair's Temperance Movement".....		3 75
May 29..	19	Paid L. P. McCarty, "Statistician" for 1889.....		4 00
May 29..	20	Paid Elinor Spencer, agent, "Heroines of History".....		2 50
June 21..	21	Paid E. B. Lewis, books.....		170 65
July 2..	22	Paid Chas. H. Wheeler, charts.....		65 00
July 2..	23	Paid L. R. Reid, books.....		29 00
July 31..	24	Paid E. B. Lewis, books.....		89 80
July 31..	25	Paid E. B. Lewis, books.....		147 88
July 31..	26	Paid Norton Memorial Fund, books.....		5 00
July 31..	27	Paid Ruth Royce, Librarian, magazines and papers.....		6 00
July 31..	28	Paid Bancroft Bros. & Co., encyclopædias.....		80 00
July 31..	29	Paid E. W. Maynard, assignee, books.....		16 98
		Totals.....	\$1,098 35	\$1,098 35

REPORT OF EXPENDITURES FROM APPROPRIATION FOR BUILDING
BRANCH STATE NORMAL SCHOOL AT CHICO, CAL. (ACT APPROVED
MARCH 9, 1887.)

Date of Auditing.	No. of Voucher		Dr.	Cr.
1887.		Amount of appropriation.....	\$50,000	
Dec. 9..	1	Paid Sacramento Publishing Co., advertising.....		\$18 00
Dec. 9..	2	Paid Sacramento Publishing Co., advertising.....		24 00
Dec. 9..	3	Paid "Sentinel," advertising.....		12 00
Dec. 9..	4	Paid Chico "Enterprise," advertising.....		14 00
Dec. 9..	5	Paid S. Roycroft, foreman, supplies for brickyard.....		102 88
Dec. 9..	6	Paid S. Roycroft, foreman, payroll at brickyard.....		273 10
Dec. 9..	7	Paid for payroll, preparing grounds.....		100 12
Dec. 9..	8	Paid San Francisco "Chronicle," advertising.....		57 20
Dec. 9..	9	Paid Anderson "Enterprise," advertising.....		4 00
Dec. 9..	10	Paid S. Roycroft, payroll at brickyard.....		125 50
Dec. 9..	11	Paid S. Roycroft, supplies, brickyard.....		300 05
Dec. 9..	12	Paid for payroll, preparing grounds.....		150 90
Dec. 9..	13	Paid for payroll, preparing grounds.....		288 80

FINANCIAL REPORT—Continued.

Date of Auditing.	No. of Voucher		Dr.	Cr.
Dec. 9..	14	Paid for telegrams.....		\$1 33
Dec. 9..	15	Paid for labor, preparing grounds.....		508 59
Dec. 9..	16	Paid for payroll, laying foundation.....		729 97
Dec. 9..	17	Paid M. T. Brown, labor.....		10 50
Dec. 9..	18	Paid Davis & Cowell, cement.....		210 00
Dec. 9..	19	Paid freight on cement.....		67 88
Dec. 9..	20	Paid express charges.....		25
Dec. 9..	21	Paid express charges.....		60
Dec. 9..	22	Paid express charges.....		90
Dec. 9..	23	Paid express charges.....		95
Dec. 9..	24	Paid express charges.....		1 20
Dec. 9..	25	Paid express charges.....		35
1888.				
Mar. 2..	26	Paid Davis & Cowell, cement.....		210 00
Mar. 2..	27	Paid Albert Smith, labor and board of man.....		6 50
Mar. 3..	28	Paid W. A. Perkins, shovel.....		75
Mar. 2..	29	Paid Davis & Cowell, cement.....		210 00
Mar. 2..	30	Paid for payroll on building.....		245 80
Mar. 2..	31	Paid W. H. Geiger, drayage.....		2 00
Mar. 2..	32	Paid sundry parties, sand.....		128 08
Mar. 2..	33	Paid sundry parties, sand.....		118 89
Mar. 2..	34	Paid sundry parties, sand.....		74 06
Mar. 2..	35	Paid express charges.....		25
Mar. 2..	36	Paid Davis & Cowell, cement.....		210 00
Mar. 2..	37	Paid for payroll, excavations and foundation.....		358 10
Mar. 2..	38	Paid Davis & Cowell, cement.....		210 00
Mar. 2..	39	Paid S. P. Co., freight on cement.....		67 04
Mar. 2..	40	Paid W. O. Moses, gravel.....		3 75
Mar. 2..	41	Paid S. P. Co., freight on brick.....		35 10
Mar. 2..	42	Paid S. P. Co., freight on cement.....		67 12
Mar. 2..	43	Paid Postal Telegraph Co., telegraphing.....		1 29
Mar. 2..	44	Paid Western Union Co., telegraphing.....		7 51
Mar. 2..	45	Paid S. P. Co., freight on brick.....		35 10
Mar. 2..	46	Paid for payroll, excavations and foundation.....		67 60
Mar. 2..	47	Paid S. P. Co., freight on brick.....		35 10
Mar. 2..	48	Paid W. H. Geiger, drayage.....		1 00
Mar. 2..	49	Paid sundry persons, gravel.....		38 70
Mar. 2..	50	Paid for payroll, foundation.....		227 45
Mar. 2..	51	Paid L. M. Coggins, lumber.....		397 98
Mar. 2..	52	Paid S. P. Co., freight on cement.....		66 93
Mar. 2..	53	Paid Wells, Fargo & Co., express.....		60
Jan. 14..	54	Paid Percy & Hamilton, plans.....		1,000 00
Mar. 2..	55	Paid S. Roycroft, labor on brickyard.....		474 25
Mar. 2..	56	Paid S. Roycroft, supplies, brickyard.....		395 37
Mar. 2..	57	Paid S. Roycroft, labor, board of men, etc., brickyard.....		119 14
Mar. 2..	58	Paid Sierra Lumber Co., lumber.....		11 54
Mar. 2..	59	Paid J. F. Redford, merchandise.....		1 00
Mar. 2..	60	Paid Chico Water Co., pipes and water.....		136 09
Mar. 2..	61	Paid S. P. Co., freight on cement.....		66 19
Mar. 2..	62	Paid S. P. Co., freight on tools.....		17 11
Mar. 2..	63	Paid S. P. Co., freight.....		1 54
Mar. 2..	64	Paid S. P. Co., freight on cement.....		66 87
Mar. 2..	65	Paid E. L. Ransome, rent of mixer.....		161 70
Mar. 2..	66	Paid "Morning Chronicle," advertising.....		1 50
Mar. 2..	67	Paid Sierra Lumber Co., lumber.....		110 08
Mar. 2..	68	Paid Davis & Cowell, cement.....		210 00
Mar. 2..	69	Paid for payroll on building.....		200 30
Mar. 2..	70	Paid Jas. McGann, surveying.....		18 75
Mar. 2..	71	Paid Davis & Cowell, cement.....		210 00
Mar. 2..	72	Paid Sierra Lumber Co., lumber.....		1 33
Mar. 2..	73	Paid W. H. Geiger, drayage.....		1 00
Mar. 2..	74	Paid S. P. Co., freight on cement.....		66 70
Mar. 2..	75	Paid E. L. Ransome, iron bars.....		26 04
Mar. 2..	76	Paid for payroll on building.....		239 65
Mar. 2..	77	Paid S. P. Co., freight.....		1 54
Mar. 2..	78	Paid Whittier, Fuller & Co., merchandise.....		58 50
Mar. 2..	79	Paid Davis & Cowell, cement.....		210 00
Mar. 2..	80	Paid S. P. Co., freight on cement.....		69 60

FINANCIAL REPORT—Continued.

Date of Auditing.	No. of Voucher		Dr.	Cr.
Mar. 2.	81	Paid for payroll on building.....		\$78 20
Mar. 2.	82	Paid E. L. Ransome, rent of tools.....		141 25
Mar. 2.	83	Paid S. P. Co., freight.....		78
Mar. 2.	84	Paid P. P. Tel. Co., telegraphing.....		1 49
Mar. 2.	85	Paid for payroll on building.....		31 30
Mar. 2.	86	Paid W. H. Geiger, dravage.....		50
Mar. 2.	87	Paid for payroll on building.....		52 90
Mar. 2.	88	Paid for payroll on building.....		75 45
Mar. 2.	89	Paid W. H. Sherwood, blacksmithing.....		18 25
May 30.	90	Paid Nichols & Hawkins, merchandise.....		24 90
May 30.	91	Paid John Bidwell, weighing sand.....		84 62
May 30.	92	Paid J. W. Crowley, loading bricks.....		168 32
May 30.	93	Paid W. Chalmers, advertising.....		7 50
May 30.	94	Paid Davis & Cowell, cement.....		210 00
May 30.	95	Paid S. P. Co., freight on cement.....		66 82
May 30.	96	Paid W. H. Sherwood, blacksmithing.....		10 75
May 30.	97	Paid Thos. Scott, unloading brick.....		44 00
May 30.	98	Paid Hubbard & Earll, merchandise.....		136 77
May 30.	99	Paid Chico Water Co., water.....		141 00
May 30.	100	Paid Sierra Lumber Co., lumber.....		546 84
May 30.	101	Paid Whittier, Fuller & Co., merchandise.....		12 50
May 30.	102	Paid John Bidwell, traveling expenses.....		6 15
May 30.	103	Paid Park Montgomery, services and expenses at brickyard.....		38 40
May 30.	104	Paid J. R. Gleeson, Secretary, traveling ex- penses.....		18 30
May 30.	105	Paid Davis & Cowell, cement.....		210 00
May 30.	106	Paid S. P. Co., freight on cement.....		66 80
May 30.	107	Paid Sacramento Publishing Co., advertising.....		20 00
May 30.	108	Paid S. P. Co., freight on brick.....		35 10
May 30.	109	Paid S. P. Co., freight on brick.....		43 88
May 30.	110	Paid S. P. Co., freight on brick.....		70 20
May 30.	111	Paid S. P. Co., freight on brick.....		35 10
May 30.	112	Paid S. P. Co., freight on brick.....		35 10
May 30.	113	Paid S. P. Co., freight on brick.....		35 10
May 30.	114	Paid S. P. Co., freight on brick.....		46 20
May 30.	115	Paid S. P. Co., freight on brick.....		70 20
May 30.	116	Paid S. P. Co., freight on brick.....		35 10
May 30.	117	Paid S. P. Co., freight on brick.....		35 10
May 30.	118	Paid S. P. Co., freight on brick.....		70 20
May 30.	119	Paid S. P. Co., freight on brick.....		81 90
May 30.	120	Paid S. P. Co., freight on brick.....		35 10
May 30.	121	Paid S. P. Co., freight on brick.....		35 10
May 30.	122	Paid S. P. Co., freight on brick.....		35 10
May 30.	123	Paid S. P. Co., freight on brick.....		35 10
May 30.	124	Paid S. P. Co., freight on brick.....		61 10
May 30.	125	Paid S. P. Co., freight on brick.....		35 10
May 30.	126	Paid S. P. Co., freight on brick.....		35 10
May 30.	127	Paid S. P. Co., freight on brick.....		35 10
May 30.	128	Paid S. P. Co., freight on brick.....		35 10
May 30.	129	Paid for payroll on building.....		23 00
May 30.	130	Paid for payroll on building.....		89 50
May 30.	131	Paid for payroll on building.....		51 00
May 30.	132	Paid for payroll on building.....		35 50
May 30.	133	Paid for payroll on building.....		65 12
May 30.	134	Paid for payroll on building.....		16 00
May 30.	135	Paid for payroll on building.....		50 00
May 30.	136	Paid for payroll on building.....		50 00
May 30.	137	Paid for payroll on building.....		20 00
May 30.	138	Paid for payroll on building.....		12 50
May 30.	139	Paid A. McFayden, gravel.....		8 90
May 30.	140	Paid E. L. Ransome, artificial stone work.....		228 80
May 30.	141	Paid Sierra Lumber Co., lumber.....		220 72
May 30.	142	Paid Hibbard & Sommer, stationery.....		5 50
May 30.	143	Paid W. J. O'Brien, lime.....		100 00
May 30.	144	Paid W. J. O'Brien, lime.....		100 00
May 30.	145	Paid Weed & Barnard, conveyance to examine lumber.....		12 00
May 30.	146	Paid S. P. Co., freight on lime.....		43 43
May 30.	147	Paid S. P. Co., freight on lime.....		44 18

FINANCIAL REPORT—Continued.

Date of Auditing.	No. of Voucher		Dr.	Cr.
May 30..	148	Paid Sierra Lumber Co., lumber.....		\$208 12
June 18..	149	Paid J. Bidwell and A. H. Crew, traveling exp.....		13 60
June 18..	150	Paid Sierra Lumber Co., lumber.....		327 66
June 18..	151	Paid Sierra Lumber Co., lumber.....		420 16
July 30..	152	Paid Hubbard & Earll, hardware.....		109 17
July 30..	153	Paid W. H. Sherwood, blacksmithing.....		62 20
July 30..	154	Paid Nichols & Hawkins, hardware.....		207 00
July 30..	156	Paid Davis & Cowell, cement.....		210 00
July 30..	157	Paid Davis & Cowell, cement.....		210 00
July 30..	158	Paid John Henry, drayage.....		5 50
July 30..	159	Paid J. G. Childers, gravel.....		28 16
July 30..	160	Paid W. A. Twitchell, gravel.....		20 79
July 30..	161	Paid J. B. Hall, gravel.....		43 64
July 30..	162	Paid A. J. Bryan, expenses.....		73 20
July 30..	163	Paid for payroll on building.....		283 25
July 30..	164	Paid for payroll on building.....		20 50
July 30..	165	Paid for payroll on building.....		287 25
July 30..	166	Paid for payroll on building.....		277 25
July 30..	167	Paid for payroll on building.....		227 37
July 30..	168	Paid petty cash bills, sundries.....		61 77
July 30..	169	Paid J. T. Davis, services and expenses.....		20 00
July 30..	170	Paid Sierra Lumber Co., lumber.....		2,736 34
July 30..	171	Paid J. F. Newman, merchandise and labor.....		118 75
July 30..	172	Paid for payroll on building.....		203 75
July 30..	173	Paid S. P. Co., freight on cement.....		67 05
July 30..	174	Paid S. P. Co., freight on cement.....		69 84
July 30..	176	Paid S. P. Co., freight on brick.....		30 60
Aug. 28..	177	Paid for payroll on building.....		326 00
Aug. 28..	178	Paid Sierra Lumber Co., lumber.....		521 89
Aug. 28..	179	Paid for payroll on building.....		330 35
Aug. 28..	180	Paid for payroll on building.....		229 75
Aug. 28..	181	Paid E. L. Ransome, artificial stone.....		414 29
Aug. 28..	182	Paid L. M. Coggins, lumber.....		39 90
Aug. 28..	183	Paid S. P. Co., freight on lumber.....		150 18
Aug. 28..	184	Paid S. P. Co., freight on cement.....		67 80
Aug. 28..	185	Paid Davis & Cowell, cement.....		210 00
Aug. 28..	186	Paid Z. W. Burnham, brick.....		1,239 32
Aug. 28..	187	Paid Robbie & Bruce, labor and material.....		87 30
Aug. 28..	188	Paid Sierra Lumber Co., lumber.....		748 18
Aug. 28..	189	Paid J. F. Newman, merchandise.....		52 00
Aug. 28..	190	Paid for payroll on building.....		382 50
Oct. 1..	191	Paid for payroll on building.....		436 50
Oct. 1..	192	Paid for payroll on building.....		652 25
Oct. 1..	193	Paid for payroll on building.....		770 85
Oct. 1..	194	Paid for payroll on building.....		749 99
Oct. 1..	195	Paid W. H. Sherwood, material.....		170 08
Oct. 1..	196	Paid Nichols & Hawkins, material.....		108 75
Oct. 1..	197	Paid J. F. Newman, material.....		92 54
Oct. 1..	198	Paid L. M. Coggins, lumber.....		64 78
Oct. 1..	199	Paid J. T. Fordham, elevator and wheelbarrow.....		52 15
Oct. 1..	200	Paid Z. W. Burnham, brick.....		1,723 48
Oct. 1..	201	Paid W. H. McKay, lumber.....		90 23
Oct. 1..	202	Paid W. H. McKay, lumber.....		79 56
Oct. 1..	203	Paid W. H. McKay, lumber.....		76 39
Oct. 1..	204	Paid S. P. Co., freight on lime.....		43 00
Oct. 1..	205	Paid S. P. Co., freight on cement.....		66 65
Oct. 1..	206	Paid S. P. Co., freight on lime.....		43 00
Oct. 1..	207	Paid W. J. O'Brien, lime.....		100 00
Oct. 1..	208	Paid W. J. O'Brien, lime.....		100 00
Oct. 1..	209	Paid Davis & Cowell, cement.....		210 00
Oct. 1..	210	Paid petty cash bills, sundries.....		21 12
Oct. 1..	211	Paid Hubbard & Earll, material.....		75 93
Oct. 1..	212	Paid Sierra Lumber Co., lumber.....		588 64
Oct. 29..	213	Paid E. A. Warren, sand.....		213 61
Oct. 29..	214	Paid W. J. O'Connor, sand.....		18 32
Oct. 29..	215	Paid Z. W. Burnham, brick.....		1,947 52
Oct. 29..	216	Paid W. J. O'Brien, lime.....		100 00
Oct. 29..	217	Paid Hubbard & Earll, material.....		87 82
Oct. 29..	218	Paid Sierra Lumber Co., lumber.....		247 72
Oct. 29..	219	Paid Hubbell & Boothe, material.....		53 60

FINANCIAL REPORT—Continued.

Date of Auditing.	No. of Voucher		Dr.	Cr.
Oct. 29..	220	Paid Davis & Cowell, cement.....		\$210 00
Oct. 29..	221	Paid S. P. Co., freight on cement.....		66 82
Oct. 29..	222	Paid S. P. Co., freight on lime.....		43 00
Oct. 29..	223	Paid petty cash bills, sundries.....		20 69
Oct. 29..	224	Paid for payroll on building.....		847 88
Oct. 29..	225	Paid for payroll on building.....		814 25
Oct. 29..	226	Paid for payroll on building.....		821 60
Oct. 29..	227	Paid for payroll on building.....		361 00
Oct. 29..	228	Paid for payroll on building.....		698 00
Oct. 29..	229	Paid John R. Gleeson, services as Secretary.....		150 00
Nov. 27..	230	Paid petty cash bills, sundries.....		10 17
Nov. 27..	231	Paid S. P. Co., freight on flooring.....		46 84
Nov. 27..	232	Paid S. P. Co., freight on flooring.....		49 03
Nov. 27..	233	Paid S. P. Co., freight on flooring.....		50 41
Nov. 27..	234	Paid S. P. Co., freight on shingles.....		18 56
Nov. 27..	235	Paid S. P. Co., freight on cement.....		66 76
Nov. 27..	236	Paid S. P. Co., freight on lumber.....		47 65
Nov. 27..	237	Paid for payroll on building.....		793 00
Nov. 27..	238	Paid for payroll on building.....		917 50
Nov. 27..	239	Paid for payroll on building.....		995 15
Nov. 27..	240	Paid Davis & Cowell, cement.....		210 00
Nov. 27..	241	Paid W. J. O'Brien, lime.....		100 00
Nov. 27..	242	Paid E. A. Warren, sand.....		7 58
Nov. 27..	243	Paid L. Fargo, material.....		27 42
Dec. 28..	244	Paid Chas. F. Doe & Co., lumber.....		1,527 80
Dec. 28..	245	Paid Sierra Lumber Co., lumber.....		440 30
Dec. 28..	246	Paid Hubbard & Earle, material.....		302 69
Dec. 28..	247	Paid Hubbell & Boothe, material.....		227 67
Dec. 28..	248	Paid J. F. Newman, material.....		135 78
Dec. 28..	249	Paid Nichols & Hawkins, material.....		143 10
Dec. 28..	250	Paid W. J. Pulliam, blacksmithing.....		84 28
Dec. 28..	251	Paid M. L. Mery, iron work.....		79 06
Dec. 28..	252	Paid Chico Water Co., pipe.....		122 26
Dec. 28..	253	Paid Chico Water Co., water.....		175 00
Dec. 28..	254	Paid Z. W. Burnham, brick.....		892 14
Dec. 28..	255	Paid Huntington, Hopkins & Co., material.....		81 80
Dec. 28..	256	Paid Huntington, Hopkins & Co., shingles.....		455 63
Dec. 28..	257	Paid S. F. Lumber Co., laths.....		109 25
Dec. 28..	258	Paid S. F. Lumber Co., flooring.....		1,282 65
Dec. 28..	259	Paid S. F. Lumber Co., laths.....		51 96
Dec. 28..	260	Paid W. H. McKay, lumber.....		172 51
Dec. 28..	261	Paid J. H. Allen, iron work.....		19 06
Dec. 28..	262	Paid Huntington, Hopkins & Co., roof felt.....		100 75
Dec. 28..	263	Paid L. S. Camper, iron work.....		45 00
Dec. 28..	264	Paid Felter & Williams, lime.....		50 00
Dec. 28..	265	Paid W. J. O'Brien, plaster of Paris.....		14 00
Dec. 28..	266	Paid for payroll on building.....		558 19
Dec. 28..	267	Paid for payroll on building.....		563 25
Dec. 28..	268	Paid S. P. Co., freight on lumber.....		47 65
Dec. 28..	269	Paid S. P. Co., freight on cement.....		66 76
Dec. 28..	270	Paid S. P. Co., freight on lumber.....		71 57
Dec. 28..	271	Paid S. P. Co., freight on felt.....		20 18
Dec. 28..	272	Paid S. P. Co., freight on laths.....		25 90
1889.				
Mar. 29..	273	Paid J. R. Gleeson, postage.....		3 06
		Traveling expenses of Board of Trustees locating Normal School for Northern California:		
		Washington Bartlett.....	\$39 50	
		Ira G. Hoitt.....	83 60	
		James Denman.....	94 60	
		L. Archer.....	94 10	
		T. Ellard Beans.....	94 10	
		Ralph Lowe.....	94 10	500 00
		Totals.....	\$50,000 00	\$50,000 00

Submitted by Executive Committee.

L. ARCHER.
RALPH LOWE.

PRINCIPAL'S REPORT.

To the Board of Trustees of the State Normal School at San José:

GENTLEMEN: I have the honor of submitting the following report of the school in San José under your charge, for the school year ending June 30, 1890:

On the thirty-first of January diplomas were granted to sixty-four pupils.

As no special time was taken to prepare for graduating exercises, the regular work of the school was continued up to the last day of the term.

The diplomas were conferred in a simple and business-like way that seemed to meet the approval of parents, teachers, and pupils.

We propose to graduate the June class in the same dignified and inexpensive manner.

We present now for diplomas a class of ninety-three. This is the largest class ever graduated from this school. The prominent features of this commencement will be class teaching in the Training Department by the Senior students, and an exhibit of work done in the various departments of Manual Training.

STATISTICS.

Two hundred and eighty-three applicants for admission to the school have been examined during the year. Of these, 81 failed to reach the required standard for admission, and 202 entered the school. One was admitted to the Senior Class, 6 to the Middle A, 4 to the Middle B, 9 to the Junior A, and 182 to the Junior B. We have admitted 62 pupils on Grammar School diplomas, 11 on High School diplomas, and 14 on teachers' certificates.

For the year, the enrollment has been, in the various classes: Senior, 192; Middle, 157; Junior, 243; Training Department, 263. The total enrollment in all classes, 855; in the Normal classes, 592; average for the year in Normal classes, 492. During the year there have been representatives in the school from forty-four counties in the State, distributed as follows:

County Representation, 1889-90.

Alameda.....	33	Mendocino.....	9
Alpine.....	1	Merced.....	5
Amador.....	5	Monterey.....	11
Butte.....	3	Napa.....	14
Calaveras.....	1	Nevada.....	5
Contra Costa.....	18	Placer.....	5
El Dorado.....	10	Sacramento.....	20
Fresno.....	12	San Benito.....	10
Humboldt.....	19	San Diego.....	3
Kern.....	3	San Francisco.....	33
Lake.....	4	San Joaquin.....	4
Lassen.....	1	San Luis Obispo.....	9
Los Angeles.....	2	San Mateo.....	3
Marin.....	7	Santa Clara.....	228
Mariposa.....	1	Santa Cruz.....	16

Shasta	3	Tehama	1
Sierra	5	Trinity	1
Siskiyou	5	Tulare	6
Solano	12	Tuolumne	4
Sonoma	9	Ventura	1
Stanislaus	4	Yolo	9
Sutter	5	Yuba	4

Counties not represented: Colusa, Del Norte, Inyo, Modoc, Mono, Orange, Plumas, San Bernardino, Santa Barbara.

In addition to those enrolled from California, we have from Idaho, 2; Kansas, 1; Michigan, 2; Minnesota, 1; Missouri, 1; Montana, 1; Nebraska, 1; Nevada, 6; Nova Scotia, 1; Oregon, 3; Washington, 7; Wisconsin, 2.

MUSEUM.

During the year, exchanges with various scientists have added much valuable material to the collections. The thanks of the State Normal School are due for donations from friends as follows: Hon. Leland Stanford; Rev. M. R. Gains; A. Tibbel; Dr. Putzeys, Belgium; M. Arturo Bofill, Spain; Flood Brothers, Massachusetts; C. H. Allen; J. R. Bush; Wm. Bankhead; W. E. Curtis; M. J. Dennis; S. B. Elliott; K. McGeorge; H. M. Kennedy; Mrs. V. Gallut; Mrs. M. E. Nichols; Mr. Mitchell.

GENERAL.

The young men in our school have organized a cadet company for exercise and discipline. On application by your Executive Committee, the Adjutant-General of this State has furnished us with guns and other necessary equipments. I recommend that a suitable place be prepared for storing these arms.

We are now using every part of the building, from basement to attic. We have been compelled to use the reception-room for library purposes, and still the library-room is much too small. Some of the Training Department classes are using rooms in the basement that cannot be heated sufficiently. The basement is entirely unsuited for class purposes. It was originally intended for store-rooms, and might be converted into a gymnasium if we had other space for the Training Department. In view of the crowded condition of our school, I earnestly request you to ask the Legislature for an appropriation of \$60,000 with which to erect a building especially adapted to the use of a modern training school.

It is unnecessary to allude here to the special work of the school during the past year, as a full account of it appears in the catalogue.

During the year, an hour at the close of school work on Thursdays has been used for popular lectures. Many persons have discoursed upon a great variety of subjects. These talks have been very interesting and profitable to us, and we sincerely thank these friends for their work.

With thanks to you for your cordial support and valuable suggestions, and to the Faculty for their very earnest and faithful labors, this report is respectfully submitted.

CHAS. W. CHILDS,
Principal.

FINANCIAL REPORT

Of the State Normal School, San José, for the Forty-first Fiscal Year, ending June 30, 1890.

GENERAL FUND.

Date of Auditing.	No. of Voucher		Dr.	Cr.
1889.		Amount of appropriation forty-first fiscal year.	\$39,000 00	
		Balance in Tuition Fund from fortieth fiscal year, as per last report.	263 13	
		Tuition collected for forty-first fiscal year.	4,160 00	
		Amount received from sale of engine.	135 00	
		Receipts from library, workshop, piano rent, etc.	172 60	
July 31.		Paid for salaries for July, 1889.		\$2,764 55
July 31.	A. 1	Paid L. Ambert, cleaning and laying carpet.		24 11
July 31.	T. 1	Paid C. H. Allen, wood for engine.		93 50
July 31.	T. 2	Paid Frank W. McEwen, wood for engine.		44 80
July 31.	T. 3	Paid E. W. Main & Co., wood for engine.		40 00
Aug. 29.		Paid for salaries for August, 1889.		2,764 55
Aug. 29.	A. 2	Paid E. B. Lewis, office supplies.		9 00
Aug. 29.	A. 3	Paid C. F. Willey, slating boards.		20 00
Sept. 27.		Paid for salaries for September, 1889.		2,972 05
Sept. 27.	A. 4	Paid Sterling Furniture Co., desks.		90 75
Sept. 27.	A. 5	Paid L. Lion, carpet.		115 35
Sept. 27.	A. 6	Paid T. Soper, carpenter work.		21 50
Sept. 27.	A. 7	Paid C. H. Allen, workbench, lumber, etc.		26 50
Sept. 27.	A. 8	Paid Bancroft Company, maps.		32 50
Sept. 27.	A. 9	Paid Frank E. Smith, clocks.		23 00
Sept. 27.	A. 10	Paid H. W. Buchman & Co., supplies.		26 88
Sept. 27.	A. 11	Paid McNeil Brothers, postals, printing, etc.		12 10
Sept. 27.	A. 12	Paid L. P. Hansen, Janitor supplies.		9 45
Sept. 27.	A. 13	Paid sundry papers, advertising.		9 60
Sept. 27.	A. 14	Paid Pieper & Watson, repairing batteries.		2 50
Sept. 27.	T. 4	Paid C. H. Allen, wood for engine.		109 50
Sept. 27.	T. 5	Paid Daunes & Van Doren, coal for engine.		24 50
Oct. 31.		Paid for salaries for October, 1889.		2,972 05
Oct. 31.	A. 15	Paid Daunes & Van Doren, coal.		668 02
Oct. 31.	A. 16	Paid S. C. V. M. & L. Co., lumber.		133 55
Oct. 31.	A. 17	Paid E. B. Lewis, stationery.		117 87
Oct. 31.	A. 18	Paid Milton Campbell, plumbing.		134 13
Oct. 31.	A. 19	Paid J. Boschken, tools and hardware.		94 95
Oct. 31.	A. 20	Paid Sterling Furniture Co., desk.		15 00
Oct. 31.	A. 21	Paid J. P. Naas, carpenter work.		24 00
Oct. 31.	A. 22	Paid F. Kuchenbeiser & Son, castings, etc.		10 45
Oct. 31.	A. 23	Paid L. Callisch, drugs.		4 00
Oct. 31.	A. 24	Paid Osborn & Alexander, tools.		85 65
Oct. 31.	A. 25	Paid Prang Ed. Co., models.		25 50
Oct. 31.	A. 26	Paid H. W. Buchman & Co., supplies.		17 54
Oct. 31.	A. 27	Paid A. Steiger Sons, clay.		15 00
Oct. 31.	A. 28	Paid Mrs. L. P. Wilson, supplies for Training Department.		14 30
Oct. 31.	A. 29	Paid Wilcox & Scott, ash bin.		33 60
Oct. 31.	A. 30	Paid C. F. Willey, painting and slating.		23 75
Oct. 31.	T. 6	Paid Davis & Co., wheelbarrows, hardware, and tools.		24 50
Oct. 31.	T. 7	Paid F. Kuchenbeiser & Son, repairing fences, etc.		50 75
Oct. 31.	T. 8	Paid Amado Castro, removing trees.		42 50
Oct. 31.	T. 9	Paid Milton Campbell, plumbing.		15 45
Oct. 31.	T. 10	Paid J. Goetz, sawing wood.		6 80
Oct. 31.	T. 11	Paid J. A. Belloli, barley.		8 85
Oct. 31.	T. 12	Paid J. Boschken, tools.		5 50
Oct. 31.	T. 13	Paid J. J. Zingg, sharpening mower.		1 00
Nov. 27.		Paid for salaries for November, 1889.		2,972 05
Nov. 27.	A. 31	Paid J. H. Elwood, music charts.		26 00
Nov. 27.	A. 32	Paid Piper & Watson, repairing electric apparatus.		12 00
Nov. 27.	A. 33	Paid A. Friant & Co., manilla paper.		5 05
Nov. 27.	T. 14	Paid C. H. Allen, wood for engine.		45 50
Nov. 27.	T. 15	Paid D. White & Co., winding engine pipes, etc.		23 45
Nov. 27.	T. 16	Paid Hawley Bros. Hardware Co., repairing mower.		26 75

FINANCIAL REPORT—Continued.

Date of Auditing.	No. o Voucher		Dr.	Cr.
Nov. 27.	T. 17	Paid Paul Petterson, graveling		\$7 50
Nov. 27.	T. 18	Paid C. W. Childs, hay		9 00
Nov. 27.	T. 19	Paid John Stock Sons, supplies		1 50
Dec. 20.		Paid for salaries for December, 1889		2,972 05
Dec. 20.		Paid Ruth Royce, services as Secretary, six months		75 00
Dec. 20.	A. 34	Paid Sterling Furniture Co., desks		29 55
Dec. 20.	A. 35	Paid S. P. R. R. Co., freight on desks		9 03
Dec. 20.	A. 36	Paid A. Friant & Co., manilla paper		10 10
Dec. 20.	A. 37	Paid S. J. Furniture Mfg. Co., upholstery		3 00
Dec. 20.	A. 38	Paid C. P. Main & Co., wood		6 00
Dec. 20.	A. 39	Paid Ruth Royce, Sec., postage, express, etc.		50 05
Dec. 20.	A. 40	Paid Mrs. A. E. Bush, Curator, museum expenses		46 65
Dec. 20.	A. 41	Paid Milton Bradley & Co., supplies		3 94
Dec. 20.	A. 42	Paid A. H. Randall, apparatus		8 40
Dec. 20.	A. 43	Paid L. Callisch, chemicals		4 16
Dec. 20.	T. 20	Paid sundry persons, hauling gravel		82 00
Dec. 20.	T. 21	Paid M. Guiltinan, services as watchman		8 50
Dec. 20.	T. 22	Paid Paul Petterson, hauling gravel		10 50
Dec. 20.	T. 23	Paid E. P. Mann & Co., wood for engine		16 00
Dec. 20.	T. 24	Paid J. P. Jarman, painting signs		13 50
Dec. 20.	T. 25	Paid J. A. Belloli, supplies		6 40
Dec. 20.	T. 26	Paid M. W. Lipe, sawing wood		2 80
1890.				
Jan. 30.		Paid for salaries for January, 1890		2,972 88
Jan. 30.	A. 44	Paid E. B. Lewis, stationery		271 16
Jan. 30.	A. 45	Paid S. C. V. M. & L. Co., lumber		96 04
Jan. 30.	A. 46	Paid Milton Campbell, repairs to furnace, etc.		156 95
Jan. 30.	A. 47	Paid Chris. Hirth, stoves and fittings		87 90
Jan. 30.	A. 48	Paid John Stock Sons, stove, etc.		15 05
Jan. 30.	A. 49	Paid S. J. Gas Co., gas, six months		36 05
Jan. 30.	A. 50	Paid Sunset Telephone Co., box rent, six months		15 00
Jan. 30.	A. 51	Paid W. F. Naas, carpenter work		27 00
Jan. 30.	A. 52	Paid Ralph H. Hoitt, filling diplomas		16 00
Jan. 30.	A. 53	Paid Wallace Sturgess, brooms		4 00
Jan. 30.	A. 54	Paid Calice & Hutchison, Janitor supplies		3 20
Jan. 30.	A. 55	Paid George B. McKee & Co., setting glass, and supplies		22 20
Jan. 31.	T. 27	Paid payroll on grounds, January, 1890		215 50
Jan. 31.	T. 28	Paid Amado Castro, cutting wood		60 00
Jan. 31.	T. 29	Paid John Samuelson, gravel		30 00
Jan. 31.	T. 30	Paid Paul Petterson, gravel		6 00
Jan. 31.	T. 31	Paid Milton Campbell, plumbing		9 30
Jan. 31.	T. 32	Paid F. Kuchenbeiser & Son, blacksmithing		4 00
Jan. 31.	T. 33	Paid David Walsh, blacksmithing		2 75
Feb. 27.		Paid for salaries for February, 1890		2,972 88
Feb. 27.	A. 56	Paid S. C. V. M. & L. Co., lumber		162 32
Feb. 27.	A. 57	Paid Frank E. Smith, lenses and repairs		5 75
Feb. 27.	A. 58	Paid A. R. Denike, tuning piano		2 50
Feb. 27.	T. 34	Paid payroll on grounds, February, 1890		178 00
Feb. 27.	T. 35	Paid Amado Castro, cutting wood		43 15
Feb. 27.	T. 36	Paid J. Samuelson, gravel		50 00
Feb. 27.	T. 37	Paid J. A. Belloli, barley		3 51
Feb. 27.	T. 38	Paid M. M. Harris, services as musician		5 00
Mar. 27.		Paid for salaries for March, 1890		3,072 88
Mar. 27.	A. 59	Paid Farmers Union, supplies		21 10
Mar. 27.	A. 60	Paid S. C. V. M. & L. Co., lumber and mill work		19 32
Mar. 27.	A. 61	Paid Charles Bernhardt, wood		7 50
Mar. 27.	A. 62	Paid E. B. Lewis, stationery, etc.		77 55
Mar. 27.	T. 39	Paid payroll on grounds, March, 1890		255 25
Mar. 27.	T. 40	Paid Farmers Union, supplies		42 78
Mar. 27.	T. 41	Paid Morgan Miles, seeds		17 70
Mar. 27.	T. 42	Paid Fikes & Abels, hay		11 50
April 25.		Paid for salaries for April, 1890		3,022 88
April 25.	A. 63	Paid Daunes & Van Doren, coal		134 64
April 25.	A. 64	Paid S. C. V. M. & L. Co., lumber, etc.		50 35
April 25.	A. 65	Paid Sunset Telephone Co., box rent two months		5 00
April 25.	A. 66	Paid A. Friant & Co., paper		10 10

FINANCIAL REPORT—Continued.

Date of Auditing.	No. of Voucher		Dr.	Cr.
April 25..	T. 43	Paid payroll on grounds, April, 1890.....		\$194 00
April 25..	T. 44	Paid McNeil Bros., spelling blanks.....		52 50
April 25..	T. 45	Paid J. A. Belloli, barley, etc.....		17 90
April 25..	T. 46	Paid Look & Taylor, hay.....		8 58
April 25..	T. 47	Paid sundry papers, advertising.....		6 00
May 29..		Paid for salaries for May, 1890.....		3,022 88
May 29..	A. 67	Paid Mrs. A. E. Bush, Curator, museum expenses.....		48 00
May 29..	A. 68	Paid Sterling Furniture Co., desks.....		41 65
May 29..	A. 69	Paid Mrs. L. P. Wilson, supplies, Training Dept.....		34 90
May 29..	A. 70	Paid E. P. Main, wood.....		6 00
May 29..	A. 71	Paid L. P. Hansen, supplies.....		4 80
May 29..	A. 72	Paid Pieper & Watson, battery.....		12 50
May 29..	A. 73	Paid A. R. Denike, tuning and repairs.....		4 00
May 29..	A. 74	Paid McNeil Bros., printing.....		4 50
May 29..	A. 75	Paid C. W. Childs, freight.....		6 35
May 29..	T. 48	Paid payroll on grounds, May, 1890.....		287 70
May 29..	T. 49	Paid Farmers Union, hose and oil.....		236 35
May 29..	T. 50	Paid E. P. Main, wood.....		68 00
May 29..	T. 51	Paid David Walsh, blacksmithing.....		5 00
May 29..	T. 52	Paid C. W. Childs, sundry expenses.....		7 75
May 29..	T. 53	Paid James Denman, traveling expenses.....		10 00
June 19..		Paid for salaries for June, 1890.....		2,972 88
June 19..	A. 76	Paid McNeil Bros., book covers.....		4 50
June 19..	A. 77	Paid C. W. Childs, express and telegrams.....		2 06
June 19..	T. 54	Paid H. B. Worcester, salary, June, 1890.....		50 00
June 19..	T. 55	Paid Ruth Royce, services as Sec'y, six months.....		75 00
June 19..	T. 56	Paid P. W. Nahl, diplomas.....		50 00
June 19..	T. 57	Paid E. B. Lewis, stationery.....		10 18
June 19..	T. 58	Paid C. W. Childs, expenses for lecture.....		9 00
June 19..	T. 59	Paid A. H. Randall, supplies.....		3 13
June 19..	T. 60	Paid Cornelia Walker, material for classes.....		2 25
June 19..	T. 61	Paid Ruth Royce, Secretary, postage, express, etc., six months.....		62 00
June 19..	T. 62	Paid Geo. B. McKee & Co., glazing, etc.....		14 30
June 19..	T. 63	Paid National Bank D. O. Mills & Co., transmitting warrants.....		10 20
June 19..	T. 64	Paid S. E. Moreland, kalsomining, etc.....		16 00
June 19..	T. 65	Paid Milton Campbell, plumbing.....		92 45
June 19..	T. 66	Paid J. Boschken, hardware and tools.....		79 94
June 19..	T. 67	Paid S. C. V. M. & L. Co., lumber.....		77 19
June 19..	T. 68	Paid F. Kuchenbeiser & Son, iron work.....		52 00
June 19..	T. 69	Paid payroll on grounds, June, 1890.....		236 00
June 19..	T. 70	Paid S. C. V. M. & L. Co., wood.....		116 00
June 19..	T. 71	Paid C. Capps, seeds.....		31 20
June 19..	T. 72	Paid J. A. Belloli, supplies.....		10 23
June 19..	T. 73	Paid G. Douglas, cutting hay.....		7 00
June 19..	T. 74	Paid Messing & Son, harness.....		5 90
July 23..	T. 75	Paid S. J. Gas Company, gas, six months.....		64 05
July 23..	T. 76	Paid Ralph Hoitt, lettering diplomas.....		23 25
July 23..	T. 77	Paid Blake, Moffitt & Towne, envelopes.....		5 85
		Total amount expended.....		\$42,612 39
		Balance in Tuition Fund at close of forty-first fiscal year.....		1,118 34
		Totals.....	\$43,730 73	\$43,730 73

SUMMARY OF ABOVE REPORT.

	Dr.	Cr.
Total income for forty-first fiscal year	\$43,730 73	
Paid for salaries	\$35,654 58	
Paid for stationery	560 31	
Paid for furniture and apparatus	772 58	
Paid for fuel and gas	922 26	
Paid for general supplies	845 68	
Paid for repairs and improvements	560 64	
Paid for miscellaneous expenses	336 41	
Total expended for support of school		\$39,652 46
Paid for payroll and labor on grounds	\$1,590 45	
Paid for fuel for engine	670 55	
Paid for general supplies for grounds	432 43	
Paid for repairs to engine, tools, fence, etc.	113 75	
Paid for plumbing	103 85	
Paid for seeds	48 90	
Total expended for care and improvement of grounds		2,959 93
Balance in Tuition Fund		1,118 34
Totals	\$43,730 73	\$43,730 73

SPECIAL APPROPRIATIONS.

APPROPRIATION FOR LIBRARY.

Date of Auditing.	No. of Voucher		Dr.	Cr.
1889.		Amount of appropriation	\$1,000 00	
July 31..	1	Paid T. Soper, labor and material for cases		\$152 65
July 31..	2	Paid L. Lion, carpet for library		38 45
July 31..	3	Paid Geo. B. McKee & Co., papering and molding		12 85
July 31..	4	Paid sundry persons, labor in library		22 40
Sept. 27..	5	Paid F. A. Taylor, subscription to periodicals		104 10
Sept. 27..	6	Paid McNeil Bros., bookbinding and paper		136 78
Sept. 27..	7	Paid W. B. Dunlap, set "History of America"		56 00
Sept. 27..	8	Paid J. A. Rankin, agent, "Book of Animals"		3 50
Oct. 31..	9	Paid John D. Alden, books		34 85
Oct. 31..	10	Paid E. B. Lewis, books		15 75
Oct. 31..	11	Paid R. Royce, "Picturesque America"		20 00
Oct. 31..	12	Paid sundry papers, subscriptions		12 55
Nov. 27..	13	Paid Mrs. A. E. Bush, books		123 39
Nov. 27..	14	Paid Mrs. E. D. Eddy, agent, "Glimpses of Fifty Years"		3 00
Nov. 27..	15	Paid McNeil Bros., covers for binding		4 40
Dec. 20..	16	Paid A. L. Bancroft & Co., set "American Literature"		45 00
1890.				
Jan. 30..	17	Paid W. B. Dunlap, books		103 45
Feb. 27..	18	Paid McNeil Bros., bookbinding		12 60
Mar. 27..	19	Paid F. A. Taylor, subscription to periodicals		31 30
May 29..	20	Paid History Co., 4 volumes Bancroft's History		22 00
May 29..	21	Paid E. B. Lewis, books		3 60
June 19..	22	Paid W. B. Dunlap, books		41 38
		Totals	\$1,000 00	\$1,000 00

APPROPRIATION FOR LAYING SIDEWALK.

Date of Auditing.	No. of Voucher		Dr.	Cr.
1889.		Amount of appropriation	\$6,400 00	
Sept. 16..	1	Paid G. W. Hanson, sidewalk, on account.....		\$3,140 00
Oct. 18..	2	Paid G. W. Hanson, sidewalk, in full.....		3,254 65
		Balance not drawn from State Treasury.....		5 35
		Totals	\$6,400 00	\$6,400 00

APPROPRIATION FOR PAINTING ROOF.

Date of Auditing.	No. of Voucher		Dr.	Cr.
1889.		Amount of appropriation.....	\$750 00	
Aug. 30..		Paid J. P. Jarman and S. Moreland, painting roof.....		\$750 00

APPROPRIATION FOR CARE OF GROUNDS.

Date of Auditing.	No. of Voucher		Dr.	Cr.
1889.		Amount of appropriation	\$1,500 00	
July 31..		Paid payroll on grounds, July, 1889.....		\$282 00
Aug. 29..		Paid payroll on grounds, August, 1889		304 65
Sept. 27..		Paid payroll on grounds, September, 1889.....		298 75
Oct. 31..		Paid payroll on grounds, October, 1889		250 40
Nov. 27..		Paid payroll on grounds, November, 1889.....		216 70
Dec. 20..		Paid payroll on grounds, December, 1889.....		147 50
		Totals	\$1,500 00	\$1,500 00

STATE NORMAL SCHOOL AT LOS ANGELES.

REPORT OF TRUSTEES OF STATE NORMAL SCHOOL, LOS ANGELES.

To his Excellency R. W. WATERMAN:

SIR: We herewith submit, for the State Normal School at Los Angeles under our charge, the financial report of the forty-first fiscal year, ending June 30, 1890, together with the report of the Principal of the school for the same year, as required by law.

In the gymnasium building account, the last item, Voucher No. 469, is drawn in the forty-second fiscal year, but is inserted here to show the complete disposal of the fund appropriated by the last Legislature for this purpose.

You will see, by glancing over the record, that we have kept carefully within the appropriations placed at our disposal.

Very respectfully submitted.

STEPHEN M. WHITE,
President of Trustees.

IRA MORE, Secretary.

FINANCIAL REPORT.

California State Normal School at Los Angeles, Forty-first Fiscal Year, ending June 30, 1890.

CURRENT EXPENSE FUND.

Date of Auditing.	No. of Voucher		Dr.	Cr.
1889.				
July 1.	-----	To appropriation for forty-first fiscal year.....	\$21,000 00	
July 31.	280	By salaries of employes for July, 1889.....		\$1,410 00
July 31.	281	By Richardson & Son, for paints and varnish.....		42 00
July 31.	282	By Sunset Telephone Co., for rent and service.....		6 25
July 31.	283	By S. M. Perry, for plumbing and repairs.....		51 90
July 31.	284	By E. A. Preuss, for postage stamps.....		20 00
July 31.	285	By Harper, Reynolds & Co., for cement and hardware.....		26 00
Aug. 31.	288	By salaries of employes for August, 1889.....		1,410 00
Aug. 31.	289	By W. C. Furrey, for hardware and labor.....		12 05
Aug. 31.	290	By L. A. City Water Co., supply for July, 1889.....		27 00
Aug. 31.	291	By L. A. Gas Co., supply for July, 1889.....		3 00
Sept. 30.	294	By salaries of employes for September, 1889.....		1,470 00
Sept. 30.	295	By S. Cal. Coal and Wood Co., for coal.....		213 18
Sept. 30.	296	By L. A. Gas Co., supply for August, 1889.....		1 50
Sept. 30.	297	By L. A. City Water Co., supply for August.....		27 00
Oct. 31.	299	By salaries for October, 1889.....		1,470 00
Oct. 31.	300	By B. F. Coulter & Co., for crash toweling.....		13 50
Oct. 31.	301	By G. W. Cooke & Co., for paper and ruling.....		13 22
Oct. 31.	302	By Rhodes & Keese, for electric battery repairs.....		3 80
Oct. 31.	303	By A. E. Littleboy, for chemicals.....		10 55
Oct. 31.	304	By W. S. Douglas, for fire extinguishers.....		40 00
Oct. 31.	305	By Eimer & Abend, for chemical apparatus.....		132 68
Oct. 31.	306	By L. A. City Water Co., supply for September.....		9 00
Oct. 31.	307	By L. A. Gas Co., supply for September.....		2 50
Oct. 31.	308	By Phil. Hirschfeld & Co., for stationery.....		70 85
Nov. 30.	311	By salaries for November, 1889.....		1,470 00
Nov. 30.	312	By Los Angeles Furniture Co., for carpet.....		73 12
Nov. 30.	313	By Adolph Ekstein, for chloride of lime.....		14 70
Nov. 30.	314	By L. A. City Water Co., supply for October.....		2 25
Nov. 30.	315	By Citizens' Water Co., from July 1 to November 1, 1889.....		3 45
Nov. 30.	316	By L. A. Gas Co., supply for October, 1889.....		2 25
Nov. 30.	317	By D. C. Roberts, for repairing clocks.....		6 50
Nov. 30.	318	By Perry Lumber and Milling Co., for portable blackboard.....		13 50
Nov. 30.	319	By W. C. Furrey, for hardware.....		23 40
Nov. 30.	320	By Shaw & Labatt, for carpentry repairs.....		12 50
Nov. 30.	321	By F. M. Parker, for building storm drain.....		179 60
Nov. 30.	322	By F. M. Parker, for repairing sewers.....		135 55
Dec. 31.	328	By salaries for December, 1889.....		1,470 00
Dec. 31.	329	By Phil. Hirschfeld & Co., for stationery.....		62 13
Dec. 31.	330	By Phares Bell, for blackboard repairs.....		4 00
Dec. 31.	331	By L. A. Gas Co., supply for November, 1889.....		3 50
Dec. 31.	332	By L. B. Lawson, for filling diplomas.....		8 00
Dec. 31.	333	By petty cash account for express and drayage.....		17 51
Dec. 31.	334	By E. A. Preuss, for postage stamps.....		10 50
Dec. 31.	335	By Citizens' Water Co., for November, 1889.....		10 50
Dec. 31.	338	By Ira More, for salary as Secretary of Trustees.....		75 00
1890.				
Jan. 31.	339	By salaries for January, 1890.....		\$1,470 00
Jan. 31.	340	By H. Jevne, for sundries.....		22 50
Jan. 31.	341	By L. A. Lighting Co., gas for December, 1889.....		5 40
Jan. 31.	342	By Citizens' Water Co., for December, 1889.....		19 45
Jan. 31.	343	By Richardson & Son, for glazing, etc.....		6 60
Jan. 31.	344	By W. C. Furrey, for hardware.....		15 50
Jan. 31.	345	By Harrison & Dickson, for Janitor supplies.....		3 50
Feb. 28.	355	By salaries for February, 1890.....		1,470 00
Feb. 28.	356	By Chas. E. Day, for piano cover.....		3 50
Feb. 28.	357	By F. M. Parker & Co., for plumbing.....		44 45
Feb. 28.	358	By L. A. Lighting Co., for gas for January.....		90
Feb. 28.	359	By Citizens' Water Co., supply for January.....		17 20

FINANCIAL REPORT—Continued.

Date of Auditing.	No. of Voucher		Dr.	Cr.
Mar. 31..	368	By salaries for March, 1890		\$1,470 00
Mar. 31..	369	By H. Jevne, for Janitor supplies		17 15
Mar. 31..	370	By Citizens' Water Co., supply for February		17 70
Mar. 31..	371	By L. A. Lighting Co., gas for February		2 25
Mar. 31..	372	By H. W. L. Corran, for one copy City Directory		4 00
Mar. 31..	373	By Hawley, King & Co., for one plow and extras		14 00
Mar. 31..	374	By Phil. Hirschfeld & Co., for stationery		35 33
April 30..	383	By salaries for April, 1890		1,470 00
April 30..	384	By Eastern Editorial Bureau, for magazines		6 00
April 30..	385	By David Mulrein, for cement platform		58 05
April 30..	386	By L. A. City Water Co., supply for March		4 50
April 30..	387	By Citizens' Water Co., supply for March		10 85
April 30..	388	By Chas. A. Ehrhardt, for extension ladder		12 00
April 30..	389	By L. A. Lighting Co., gas for March		2 40
April 30..	390	By Adolph Ekstein, for laboratory supplies		3 45
April 30..	390½	By petty cash account for expressage paid		20 30
May 31..	405	By salaries for May, 1890		1,470 00
May 31..	406	By Jas. W. Queen, for microscope slides		42 11
May 31..	407	By L. A. Lighting Co., gas for April		2 20
May 31..	408	By Citizens' Water Co., supply for April		8 90
May 31..	409	By Perry Lumber and Mill Co., for repairs		21 70
May 31..	410	By L. A. City Water Co., for supply for April		13 50
May 31..	411	By LeCount Bros., for parchment		5 00
May 31..	412	By J. S. Fox, for map stand and rack		6 00
May 31..	413	By E. A. Preuss, for postage stamps		10 00
May 31..	414	By Home Mutual Insurance Co., premium		150 00
June 30..	422	By salaries for June, 1890		1,470 00
June 30..	423	By Geo. W. Frasher, for hauling		12 50
June 30..	424	By L. A. City Water Co., for May and June, 1890		22 50
June 30..	425	By W. C. Furrey, for hardware		6 15
June 30..	426	By Phil. Hirschfeld & Co., for stationery		14 08
June 30..	427	By L. A. Lighting Co., gas for May and June		5 00
June 30..	428	By Geo. H. Williams, for gravel		19 45
June 30..	429	By Citizens' Water Co., for May and June		16 40
June 30..	430	By Ira More, for salary six months as Sec'y		75 00
June 30..	431	By John S. Cruise, for cleaning and varnishing		12 50
June 30..	432	By Jos. Gartreich, for cleaning and varnishing		15 00
June 30..	433	By H. C. Wyatt, for rent of Opera House		25 00
June 30..	434	By Adolph Ekstein, for chamois leather		1 10
June 30..	435	By Petty Cash Fund, for expressage		19 65
June 30..	436	By Kingsley & Barnes, for programmes		15 00
June 30..	448	By L. B. Lawson, for filling and making diplomas		35 00
June 30..	449	By Stern, Loeb & Co., for ribbons		3 45
		By balance carried to forty-second fiscal year		1,192 39
			\$21,000 00	\$21,000 00

LIBRARY AND MUSEUM FUND.

Date of Auditing.	No. of Voucher		Dr.	Cr.
1889.				
July 1..	-----	To appropriation for forty-first fiscal year.....	\$500 00	
Aug. 31..	292	By The J. Dewing Company, for 2 vols. Encyclopaedia Britannica.....		\$10 80
Nov. 30..	323	By The Lewis Publishing Company, for History of Los Angeles County.....		18 00
1890.				
Jan. 31..	350	By Phil. Hirschfeld & Co., for library books.....		172 09
Feb. 28..	360	By Neuner & Mills, for binding and repairing.....		49 10
Feb. 28..	361	By The History Company, for 4 vols. Bancroft's History.....		22 00
April 30..	391	By W. B. Dunlap, for library books.....		77 00
June 30..	439	By Merrill & Cook, for music books.....		10 50
June 30..	440	By James W. Queen & Co., museum pins.....		3 48
		By balance.....		137 03
		Totals	\$500 00	\$500 00

CARE OF GROUNDS.

Date of Auditing.	No. of Voucher		Dr.	Cr.
1889.				
July 31..	287	To appropriation for forty-first fiscal year.....	\$750 00	
Aug. 31..	293	By William Capple, for work in July.....		\$50 00
Sept. 30..	298	By William Capple, for work in August.....		54 00
Sept. 30..	298	By William Capple, for work in September.....		50 00
Oct. 31..	309	By William Capple, for work in October.....		54 00
Oct. 31..	310	By M. S. Whitcomb, work with team.....		11 40
Nov. 30..	324	By William Capple, for work in November.....		50 00
Nov. 30..	325	By M. S. Whitcomb, work with team.....		35 85
Dec. 31..	336	By William Capple, for work in December.....		50 00
Dec. 31..	337	By Orlando Moore, for gravel for repairs.....		2 00
1890.				
Jan. 31..	346	By George H. Williams, for gravel.....		9 00
Jan. 31..	347	By William Capple, for work in January.....		52 00
Feb. 28..	362	By William Capple for work in February.....		46 00
Mar. 31..	375	By William Capple, for work in March.....		52 00
April 30..	392	By W. R. Lewis, for work with team.....		28 25
April 30..	393	By William Capple, for work in April.....		52 00
April 30..	394	By M. S. Whitcomb, for work with team.....		10 50
May 31..	415	By William Capple, for work in May.....		52 00
May 31..	416	By Isaac R. Raygood, for work.....		12 75
May 31..	417	By William Bedney, for work with team.....		17 50
June 30..	437	By William Capple, for work in June.....		50 00
June 30..	438	By Isaac R. Raygood, for work.....		3 00
		By balance		7 75
			\$750 00	\$750 00

SUMMARY OF PETTY CASH ACCOUNT.

	Dr.	Cr.
<i>Forty-first Fiscal Year.</i>		
July 1, 1889—To amount on hand as per last report	\$59 08	
To rent of room to United States Magnetic Observatory	18 00	
To water used in United States Magnetic Observatory	6 00	
To amount received for coal used in Model School	36 00	
To amount received from Current Expense Fund	57 46	
To amount received for brick	7 00	
By amount paid for expressage		\$87 45
By amount paid for freight and cartage		17 86
By amount paid for telegraphing		6 10
By amount paid for advertising		8 00
By amount paid for books and printing		11 35
By amount paid for interest		15 55
By amount paid for sundry small bills		16 00
By balance		21 23
	\$183 54	\$183 54

IMPROVEMENT OF GROUNDS FUND.

Date of Auditing.	No. of Voucher		Dr.	Cr.
1889.				
July 1..	-----	To appropriation for forty-fiscal year	\$500 00	
July 31..	286	By Los Angeles Construction Co., for earth fill- ing on Normal grounds		\$345 57
Nov. 30..	326	By F. M. Parker, for storm drain		107 00
Nov. 30..	327	By L. D. Rogers, for cement steps to Hope Street		47 35
		By balance June 30, 1890		08
			\$500 00	\$500 00

GYMNASIUM BUILDING ACCOUNT.

Date of Auditing.	No. of Voucher		Dr.	Cr.
1890.				
Jan. 31..	348	To appropriation for building and furnishing ..	\$10,000 00	\$150 70
Jan. 31..	349	By payroll of employés		32 40
Jan. 31..	350	By W. R. Lewis, for work with team, grading ..		32 00
Jan. 31..	351	By W. R. Lewis, for hauling sand and gravel ..		12 00
Jan. 31..	352	By M. S. Whitcomb, for hauling gravel		144 10
Jan. 31..	353	By payroll of employés		5 00
Jan. 31..	354	By O. J. Muchmore, for building permit		151 00
Feb. 28..	363	By payroll of employés		21 75
Feb. 28..	364	By W. R. Lewis, for hauling sand and gravel ..		370 88
Feb. 28..	365	By James R. Gamble, for brick delivered		155 00
Mar. 31..	366	By Kysor, Morgan & Walls, for plans and speci- fications		250 00
Mar. 31..	367	By payroll of employés		235 85
Mar. 31..	376	By payroll of employés		183 40
Mar. 31..	377	By Thos. José, for stone delivered		69 75
Mar. 31..	378	By Union Lumber Company, for lumber		374 75
April 30..	379	By L. A. Planing Mill Company, for part pay- ment		500 00
April 30..	380	By payroll of employés		121 42
April 30..	381	By payroll of employés		165 00
April 30..	382	By Ganahl Lumber Company, for lumber deliv- ered		543 60

FINANCIAL REPORT--Continued.

Date of Auditing.	No. of Voucher		Dr.	Cr.
April 30..	395	By payroll of employes.....		\$264 35
April 30..	396	By payroll of employes.....		129 40
April 30..	397	By Union Lumber Company, for lumber delivered.....		1,145 70
April 30..	398	By Whittier, Fuller & Co., for cement.....		154 80
May 7..	399	By Ganahl Lumber Company, for lumber.....		251 32
May 7..	400	By Haben & Philip, for sheet-iron and tin work.....		191 00
May 7..	401	By L. A. Lime Company, for lime for foundation.....		88 20
May 7..	402	By Fruhling Bros., for iron work.....		334 00
May 7..	403	By Baker Ironworks, for use of derrick.....		3 25
May 7..	404	By payroll of employes.....		108 10
May 31..	418	By Livingston & Cornelius, for ventilators.....		21 00
May 31..	419	By Union Lumber Company, for lumber.....		41 06
May 31..	420	By Brown & Foster, for hardware.....		192 46
May 31..	421	By payroll of employes.....		166 65
May 31..	422	By L. A. Planing Mill Company, for lumber and labor.....		750 00
June 30..	441	By Ganahl Lumber Company, for lumber.....		293 96
June 30..	442	By payroll of employes.....		219 50
June 30..	443	By L. A. Planing Mill Company, for lumber and labor.....		936 54
June 30..	444	By P. H. Mathews, for paints and oils.....		124 50
June 30..	445	By Brown & Foster, for hardware.....		13 70
June 30..	446	By Ganahl Lumber Co., for lumber.....		23 38
June 30..	447	By payroll of employes.....		27 50
June 30..	448	By Tufts-Lyon Arms Co., for apparatus.....		32 40
June 30..	449	By Tufts-Lyon Arms Co., for apparatus.....		82 26
Aug. 30..	469	By Tufts-Lyon Arms Co., for apparatus.....		885 34
		By balance of appropriation in State Treasury.....		1 03
			\$10,000 00	\$10,000 00

PRINCIPAL'S REPORT.

To the Board of Trustees of the State Normal School at Los Angeles:

GENTLEMEN: The work of the past year does not differ materially from that of the preceding years. The school is steadily increasing in numbers and improving in quality. In no part of the State has the improvement in the public schools been so rapid during the past few years as in Southern California; and the Normal School, while itself a factor in this development, receives the benefit of students much better prepared for its own course of study and discipline.

The good effects of but one admission and one graduation during the year are already shown in the increased constancy of attendance. Students do not take the Normal course as "catch-up work" to occupy their otherwise leisure time, but enter with a purpose of graduating. The only remaining Christmas class will go out this coming year, and then we shall have only the regular Junior, Middle, Senior, and Post Graduate Classes; one class on each year of the course.

The graduates of the past year are: a class of eighteen at Christmas, 1889; and a class of twenty-eight in June, 1890, making forty-six on the three years' course; also, in June, 1890, a class of four on the Post Graduate course, making fifty graduates for the year. For the benefit of those who are inclined to question if Normal graduates teach, and thus return to the State the equivalent of the special education they have received, we have kept a record of the work of our first class of twenty-two, which graduated in 1884, exactly six years ago, and find they have made an average of four and nine tenths years of teaching. This seems to make certain the fulfillment of the promise made from the platform when they received their diplomas. This class will teach ten years. Other classes are doing as well; and the coming years will, I doubt not, show the average work of the Normal graduate to be at least ten years.

The necessity of bodily training of students who are fitting for teachers has long been apparent. The Normal Schools work their students hard, and the temptation to spend the time out of school poring over books and notes, lest the next promotion should not be secured, or the subject and the premethod of presentation should not be thoroughly mastered for future teaching, uses up the precious hours and leaves no fraction of time for that exercise which alone develops the body and keeps it in a proper state of health. The best advice and suggestion produce but spasmodic reform. The teacher goes out fitted in mind but not in body, and the coming years of work must be sandwiched with frequent years of rest, or an early breakdown ends a promising career.

To meet this want of physical culture the last Legislature made an appropriation of \$10,000, in answer to a call of the Trustees of this school, for building and furnishing a gymnasium. With \$9,000 of this appropriation a handsome building has been erected and put in order for use. One thousand dollars' worth of apparatus is on the way from

the manufacturers, and the whole will be complete for use before September 2, 1890, when the school opens for the year. It is intended that each student shall practice in calisthenic or class gymnastic exercises, under the careful supervision of a skilled instructor, for about the time of one recitation period each day. Only those whose judgment can be trusted will be allowed to practice gymnastic exercises without supervision, as much harm sometimes results from the over exertion of would be gymnasts.

The building is so constructed that if at any time you should think it best to have the girls (for all Normal Schools are filled mainly with girls in these days) taught practically in the use of the fore-plane, adze, and hand-saw, the apparatus needs only to be replaced with work benches, lathes, and tools, and its design as a perfect manual training school will be apparent.

A separate building for a chemical and physical laboratory is much needed. This would give us extra class-room in the main building, now becoming crowded, and remove the chemistry to a place where the constant experimenting, made necessary by the practical teaching of to-day, should not be an "ill savor filling the nostrils of the people."

Very respectfully submitted.

IRA MORE,
Principal.

STATE NORMAL SCHOOL AT CHICO.

REPORT OF TRUSTEES OF STATE NORMAL SCHOOL, CHICO.

To his Excellency R. W. WATERMAN, Governor:

SIR: We herewith submit, for the State Normal School under our charge, the financial report for the forty-first fiscal year, ending June 30, 1890. In view of the demands incident to the organization of a school of this character, we trust you will find that the funds intrusted to us have been judiciously expended. By reference to the report of the Principal of the school, and to the annual catalogue, it will be seen that the first year's attendance was much larger than any one expected. To provide for this and for the natural growth of the school, an increase in the number of teachers in the Normal Department will be required next year, which, together with the expense attending the establishment of the Training and Model School, will necessitate a very careful handling of the remainder of the appropriation of \$27,000.

Good work has been done by the school, and, because of its influence, a new interest is already being felt in the cause of common school education in this part of the State.

For the two fiscal years—forty-third and forty-fourth—to enable the school to do the best work, the following appropriations will be required:

For current expenses	\$42,000 00
For library	5,000 00
For museum and apparatus	3,000 00

This, at first thought, may seem too large, but we must include under current expenses, not only those of the Normal Department and the Training School, but also the care of the grounds, which consist of eight acres. An extra library appropriation is asked for the next two years, because with the same course of study we are expected to do the same work as is done in the other Normal Schools of the State. This is impossible, while we have only one tenth of the supply of books and apparatus. We have, as yet, been able to spend nothing on the museum, and we have a very limited amount of the apparatus necessary in the scientific department of the school; therefore, we ask for the above amount to help us in making a beginning. After a foundation is laid, there will only be required an amount proportional to that received by the older schools.

Very respectfully submitted.

F. C. LUSK,
President of Trustees.

EDW. T. PIERCE, Secretary.

AUGUST 15, 1890.

FINANCIAL REPORT

Of the California State Normal School at Chico, for the Forty-first Fiscal Year, ending June 30, 1890.

CURRENT EXPENSE ACCOUNT.

Date of Auditing.	No. of Voucher		Dr.	Cr.
1889.		To appropriation for current year	\$13,500 00	
Aug. 1..	a. to b. 1	By salaries of employés for July, 1889.....		\$416 66
Sept. 3..	a. to f. 2	By salaries of employés for August, 1889.....		758 33
Sept. 27..	a. to f. 3	By salaries of employés for September, 1889.....		783 34
Sept. 27..	4	By Marysville "Democrat," advertising.....		4 00
Sept. 27..	5	By Shasta County "Democrat," advertising.....		3 50
Sept. 27..	6	By Marysville "Appeal," advertising.....		7 30
Sept. 27..	7	By Colusa "Sun," advertising.....		2 00
Sept. 27..	8	By Chico "Chronicle-Record," advertising.....		5 00
Sept. 27..	9	By "People's Cause," advertising.....		5 00
Sept. 27..	10	By M. L. Seymour, holding examinations.....		9 95
Sept. 27..	11	By C. M. Ritter, holding examinations.....		86 10
Sept. 27..	12	By Chico "Enterprise," advertising and printing.....		9 00
Sept. 27..	13	By John R. Gleeson, postage stamps.....		25 00
Oct. 28..	a. to f. 14	By salaries for October, 1889.....		783 35
Oct. 28..	15	By E. T. Pierce, \$100 to be used in paying current small bills*.....		
Oct. 28..	16	By Gladding, McBean & Co., clay.....		6 00
Nov. 29..	17	By H. N. Gustin, miscellaneous supplies.....		94 25
Nov. 29..	18	By salaries for November, 1889.....		783 35
Nov. 29..	19	By Postmaster, postage stamps.....		10 00
Nov. 29..	20	By W. B. H. Dodson, advertising.....		4 00
Nov. 28..	21	By Hibbard & Sommers, miscellaneous supplies.....		19 30
Dec. 22..	22	By salaries for December, 1889.....		783 33
1890.				
Jan. 27..	23	By E. T. Pierce, miscellaneous small bills.....		9 80
Jan. 27..	24	By A. Miller, wood.....		6 25
Jan. 27..	a. to g. 25	By salaries for January, 1890.....		843 35
Jan. 27..	26	By Hibbard & Sommers, supplies.....		5 80
Feb. 24..	27	By R. Diller, wood.....		137 50
Feb. 24..	28	By Sierra Lumber Co., work.....		2 50
Feb. 24..	29	By Payot, Upham & Co., supplies.....		7 65
Feb. 24..	a. to h. 30	By salaries for February, 1890.....		848 35
Mar. 25..	31	By H. N. Gustin, supplies.....		27 70
Mar. 25..	32	By Weed & Bernard, team.....		5 00
Mar. 25..	33	By Coggins Bros., lumber.....		6 69
Mar. 25..	34	By H. Mecum, work.....		8 12
Mar. 25..	35	By L. P. Drexel, supplies.....		18 90
Mar. 25..	36	By Chico Transfer Co., drayage.....		1 25
Mar. 25..	37	By Hibbard & Sommers, stencil maps.....		5 85
Mar. 25..	a. to h. 38	By salaries for March, 1890.....		848 35
Apr. 26..	39	By R. Diller, wood.....		183 00
Apr. 26..	40	By M. Oser, cloth.....		3 75
Apr. 26..	41	By H. N. Gustin, supplies.....		85 15
Apr. 26..	a. to i. 42	By salaries for April, 1890.....		867 35
May 23..	a. to i. 43	By salaries for May, 1890.....		885 65
May 23..	44	By E. T. Pierce, sundry small bills.....		8 56
May 23..	45	By Hubbard & Earll, supplies (hardware).....		37 42
May 23..	46	By H. T. Batchelder, postage stamps.....		30 00

* Not allowed.

FINANCIAL REPORT—Continued.

Date of Auditing.	No. of Voucher		Dr.	Cr.
June 9..	47	By H. N. Gustin, supplies.....		\$22 84
June 9..	48	By Chico Gas Co., gas and water.....		128 20
June 9..	49	By A. C. Broyles, supplies.....		5 00
June 9..	50	By "Chronicle-Record," printing blanks.....		4 00
June 9..	51	By Deveney & Crew, chemicals and glassware.....		34 88
June 9..	52	By Coggins Bros., rulers, pointers, etc.....		15 36
June 9..	53	By M. L. Seymour, miscellaneous supplies.....		18 08
June 9..	54	By salaries for June, 1890.....		889 95
June 9..	55	By E. T. Pierce, salary as Secretary for 1889-90.....		100 00
June 23..	56	By E. T. Pierce, discount and expressage.....		9 55
June 23..	57	By "Chronicle-Record," printing invitations.....		3 00
June 23..	58	By Chico "Enterprise," printing programmes.....		3 50
June 23..	59	By Hibbard & Sommers, supplies.....		22 10
		By balance.....		2,760 84
			\$13,500 00	\$13,500 00

LIBRARY AND MUSEUM.

Date of Auditing.	No. of Voucher		Dr.	Cr.
1889.				
July 1..		To appropriation for current year.....	\$1,000 00	
Sept. 27..	1	By Deveney & Crew, Chemicals and glassware.....		\$15 00
Oct. 28..	2	By D. Appleton & Co., Cyclopaedia of A B.....		28 80
Nov. 29..	3	By Bancroft Bros., Zell's Encyclopaedia.....		36 00
Nov. 29..	4	By Hibbard & Sommers, maps, globes, etc.....		361 03
Nov. 29..	5	By Hibbard & Sommers, magazines and periodicals.....		44 00
Nov. 29..	6	By Hibbard & Sommers, library books.....		75 15
Dec. 22..	7	By Bay State Publishing Co., relief maps.....		24 00
Dec. 22..	8	By Deveney & Crew, museum jars and supplies.....		104 68
Dec. 22..	9	By Ginn & Co., music.....		6 23
Dec. 22..	10	By H. N. Gustin, music books.....		87 05
1890.				
Jan. 27..	11	By Hibbard & Sommers, library books.....		195 18
May 23..	12	By "Forum" Co., six volumes of "Forum".....		15 00

SUMMARY FOR FORTY-FIRST FISCAL YEAR.

	Dr.	Cr.
CURRENT EXPENSE.		
To receipts.....	\$13,500 00	
By disbursements.....		\$10,739 16
By balance.....		2,760 84
	\$13,500 00	\$13,500 00
LIBRARY AND MUSEUM.		
To receipts.....	\$1,000 00	
By disbursements.....		\$992 12
By balance.....		7 88
	\$1,000 00	\$1,000 00

PRINCIPAL'S REPORT.

To the Board of Trustees of the California State Normal School at Chico:

GENTLEMEN: The first year of the State Normal School under your charge has just closed. The opening of the school marks an epoch in the educational history of this part of our State. The large number of students who have availed themselves of its advantages indicates the wisdom of the legislators in locating north of Sacramento a professional school for teachers. With a Normal School at San José, near the central part of the State from north to south, and one at Los Angeles in the southern part, a similar institution for Northern California was an imperative necessity if the schools of this immense region were to keep pace with the educational progress evinced in other parts of our great commonwealth.

One hundred and ten students have been in attendance during the year, and these students have represented the following counties: Modoc, Lassen, Plumas, Siskiyou, Shasta, Tehama, Butte, Colusa, Yuba, Calaveras, Nevada, Sonoma, Lake, Solano, Sacramento, San Joaquin, and El Dorado.

The many inquiries in regard to the school indicate that there will be a reasonable increase in numbers at the beginning of the second year. Believing it wise to lay a firm foundation for the future well-being and success of the school, the Faculty have been careful to admit only those who are fairly well prepared to do the work with credit. This has been thought better even at the beginning, as the real success of a Normal School is shown not in the number of students on the roll, but in the character of the work done, and in the fitness of its graduates for the responsible work of teaching.

The first class will graduate one year from now, and the energy and enthusiasm with which its members have performed the duties required of them, indicate that they will be well prepared to take charge of schools and do good work.

At the opening of the school in September the Training and Model Departments will be organized. I hope to put into practice in that part of the Normal School certain plans which will, I believe, add much to the institution as a professional training school for teachers.

Two more teachers will be required in the Normal Department of the school, and two teachers who are especially prepared to oversee and properly direct the work in the Training School will be needed in that department.

General plans for the school during the coming year have been given in my report in the annual catalogue, and, therefore, need not be repeated here.

As you are aware, many difficulties have presented themselves during this first year of the school. The unfinished state of the building has been an especial annoyance, while our library and apparatus have been insufficient for the needs of the classes. I trust that the next Legisla-

ture, realizing the importance of this school to the well being of the State, will appropriate enough money to finish the building and give our library and the scientific departments a proper nucleus of books and appliances for future growth.

In conclusion, I thank you most heartily, gentlemen of the Board, for the support you have given me during this trying period of organization, and for the uniform kindness and courtesy you have shown me at all times. You have patiently listened to my many requests and have done everything in your power to further the success of the school. The people of the State owe you a debt of gratitude for the time and attention which you have shown to their interests in the work of building and organizing this public institution.

With an abiding faith in the continued success of the school, and a renewed zeal for the work of the coming year,

I am, most respectfully,

EDW. T. PIERCE,
Principal.

AUGUST 15, 1890.

BIENNIAL REPORT

OF THE

BOARD OF STATE HARBOR COMMISSIONERS

FOR THE TWO FISCAL YEARS

COMMENCING JULY 1, 1888, AND ENDING JUNE 30, 1890.



SACRAMENTO:

STATE OFFICE, : : : : : J. D. YOUNG, SUPT. STATE PRINTING.

1890.



REPORT.

To Hon. R. W. WATERMAN, Governor of the State of California:

Pursuant to Sections 332 and 2537 of the Political Code, the Board of State Harbor Commissioners, having control of the waterfront of the city and county of San Francisco, submits this report of its transactions from the thirtieth day of June, 1888, to the first day of July, 1890, showing a full report of all moneys by it received and disbursed, and stating specifically the sources of such receipts, and the purposes for which the disbursements were made, accompanied with a description of the improvements made, and a statement of the condition of the property under its charge.

The details of the receipts and disbursements appear in the tabular statements annexed hereto—the following is a summary of them:

RECEIPTS.	1888-9.	1889-90.	Total.
From dockage	\$218,666 10	\$207,714 50	\$426,380 60
From tolls	221,860 14	195,384 32	417,244 46
From wharfrage	7,489 14	10,903 08	18,392 22
From rents of wharves and seawall lots, and special dock privileges, including reserving of berths.	165,325 80	176,403 10	341,728 90
From sale of old material	3,047 76	3,512 81	6,560 57
From dredging	160 00	920 00	1,080 00
From Fishermen's Wharf (exclusive of rents).....	2,558 00	3,578 85	6,136 85
From miscellaneous (damages to property, etc.)....	430 60	688 92	1,119 52
Total receipts.....	\$619,537 54	\$599,105 58	\$1,218,643 12
Amount drawn from San Francisco Harbor Improvement Fund	247,137 61	311,633 96	558,771 57
Totals	\$866,675 15	\$910,739 54	\$1,777,414 69
DISBURSEMENTS.	1888-9.	1889-90.	Total.
Salaries of Commissioners, Secretaries, Engineers, Draughtsmen, Attorney, Wharfingers, Collectors, Watchmen, and clerks in Secretary's office.	\$104,914 65	\$90,647 45	\$195,562 10
Construction, including building of new wharves, sheds, sewers, and roadways, maintenance and repairs of outer half of waterfront streets, old wharves, buildings, roadways, and seawall.....	231,353 84	301,063 18	532,417 02
Wharf cleaning.....	15,812 60	16,177 58	31,990 18
Dredging	62,424 96	51,588 91	114,013 87
Seawall construction	99,765 47	97,632 20	197,397 67
Filling in and improving seawall lots	1,820 77	17,787 28	19,608 05
Fire account.....	4,941 55	4,988 65	9,930 20
General expenses, including office rent, fuel, stationery, printing, legal expenses, lighting wharves, overpaid revenue returned, and other incidental expenses	24,036 19	24,706 09	48,742 28
Total disbursements.....	\$545,070 03	\$604,591 34	\$1,149,661 37
Amount remitted to State Treasurer	321,605 12	306,148 20	627,753 32
Totals	\$866,675 15	\$910,739 54	\$1,777,414 69

From which summary it appears that there was received during the last two fiscal years the sum of \$1,218,643 12, and expended \$1,149,-

661 37, showing an increase in the amount in the San Francisco Harbor Improvement Fund from \$203,555 37, the amount therein at the close of the last report, to \$272,537 12, a gain of \$68,981 75.

The following shows the condition of the San Francisco Harbor Improvement Fund:

Amount in fund July 1, 1888	\$203,555 37
Amount remitted to June 30, 1890	627,753 32
	<hr/>
	\$831,308 69
	<hr/>
Amount drawn out to June 30, 1890	\$558,771 57
Amount in fund July 1, 1890	272,537 12
	<hr/>
	\$831,308 69

Construction account has been segregated under two heads:

First—Seawall, and the structures appertaining thereto, and the roadway connected therewith.

Second—All other contract work.

SEAWALL.

Section 7. The contract for the construction of Section 7 of the seawall was awarded to J. S. Tibbals on the twelfth day of May, 1887, he being the lowest bidder. He did not commence the work promptly, and failed to prosecute it as vigorously as he should, and so but little progress was made when his death occurred, in February, 1888. The contract did not provide how much work should be done each month, the only limitation being that it should be completed within one year; but the Board, in making payments for what work was done, retained 25 per cent of the estimated value of the material used and work performed. Owing to the death of Mr. Tibbals, work was stopped until May 19, 1888, when a sale of the contract was made by his estate to J. S. Antonelle and George D. Nagle, with the approval of the Superior Court. On July 23, 1888, Messrs. Antonelle & Nagle assigned their interest in the contract to the San Francisco Contracting Company, who undertook the completion of the work, and completed the wharf and brought the embankments to grade on May 31, 1889. The embankments were there maintained for a period of three months, when the work was accepted and final payments made.

There was paid for this work as follows:

Stone, 91,307 $\frac{3}{10}$ tons, at 68 cents per ton of 2,240 pounds	\$62,088 95
Earth, 74,217 $\frac{15}{100}$ cubic yards, at 33 $\frac{1}{3}$ cents per cubic yard	24,739 04
Wharf	22,500 00
	<hr/>
Total cost	\$109,327 99

Of this amount, \$6,918 28 was paid prior to the date of the last report (June 30, 1888), and the balance, \$102,409 71, was paid since.

The estimates for the stone and earth for this section were based upon the amounts used in the construction of Sections 5 and 6, and they were in excess of the actual amounts used: Stone, 18 $\frac{76}{100}$ per cent; and earth, 16 $\frac{51}{100}$ per cent.

The construction of this section made necessary the removal of a portion of the Jackson and Washington-Street Wharves and the construction of temporary roadways. A contract was awarded for this work

prior to June 30, 1888, but payment was made since. Contract price, \$2,500.

Section 8 (b). On the twenty-third day of October, 1888, the Board met to award a contract for the construction of Section 8 (b) of the seawall. Twelve bids were received, as follows:

NAME OF BIDDER.	Timber Foundation.	Concrete— per Cubic Yard.	Sand— per Cubic Yard.	Stone— per Ton.	Total.
John W. Ferris	\$60,165 60	\$13 83½	\$0 60	\$1 20	\$131,366 40
M. J. Kelly and John Hackett.....	72,000 00	24 00	50	99	164,978 00
B. McMahon & Son.....	72,643 00	14 50	42	1 07	135,987 00
San Francisco Contracting Co.....	49,092 00	24 75	60	80	148,877 00
Rudolf Axman & Co.....	51,318 00	17 00	70	85	135,488 00
Hoffman & Bates	78,742 00	14 62	35	82	138,220 00
Pacific Bridge Co.....	41,610 00	24 00	57	1 00	138,250 00
American Bridge and Building Co.	57,000 00	20 00	40	75	133,450 00
John Kelso	70,000 00	16 00	40	1 00	136,200 00
George D. Nagle	71,000 00	10 00	50	1 50	126,000 00
San Francisco Bridge Co.....	62,920 00	15 00	45	98	128,976 00
J. S. Antonelle.....	63,288 00	11 90	40	1 15	118,688 00

The contract was thereupon awarded to J. S. Antonelle, he being the lowest bidder.

This section is located at the foot of Market Street, and as the construction of a large building, arranged for the rapid and convenient handling of passengers, baggage, mail, express, and freight, is contemplated at this point, it was considered necessary, in order to secure a proper foundation for such building, to substitute a concrete wall for the stone embankment used in the sections previously built. The specifications for this work provided for the construction of the concrete wall by the use of coffer dams, but the contractor, after several ineffectual efforts to construct a coffer dam, made application to the Board to be allowed to perform the work with caissons. To this the Board agreed, with the stipulation that there should be deducted from the contract price the sum of \$5,027 04, the estimated difference in the cost of the two methods.

The contractor has performed work amounting to \$92,869 37, 75 per cent of which, \$69,652 04, has been paid, in accordance with the terms of the contract, the remaining 25 per cent to be paid upon the final completion and acceptance of the work.

A contract was awarded for the removal of the structures in the area to be occupied by this section, by which the contractor agreed to perform the work, and in addition pay to the Board \$762, all the wharf material removed to become his property.

COST OF THE SEAWALL.

The cost of constructing the several sections of the seawall and thoroughfare is as follows:

Section A, 561 feet long, \$152 61 per linear foot.....	\$85,614 53
Section 1, 1,000 feet long, \$165 63 per linear foot.....	165,631 40
Section 2, 1,000 feet long, \$167 50 per linear foot.....	167,504 00
Section 3, 1,000 feet long, \$235 50 per linear foot.....	235,049 51
Section 4, 1,000 feet long, \$240 87 per linear foot.....	240,872 01
Section 5, 1,000 feet long, \$169 89 per linear foot.....	169,893 57
Section 6, 800 feet long, \$158 47 per linear foot.....	126,779 73
Section 7, 1,000 feet long, \$109 32 per linear foot.....	109,327 99

Total cost of 7,361 feet (average cost per linear foot, \$176 70).. \$1,300,672 85

The marked decrease in the cost of Section 7 of the seawall is due to the fact that less material was used in the construction thereof, the old seawall projecting into the area to be occupied by this section.

PAVING SEAWALL ROADWAY AND STREETS ADJACENT THERETO.

The acquisition of the seawall lots necessitated the improvement by the Board of the streets upon which such property fronts, and the following contracts were let for paving portions of such streets and the seawall roadway since July 1, 1888:

On the twentieth day of August, 1889, a contract was entered into with J. W. McDonald to pave with basalt blocks portions of Drum Street, Broadway, and the seawall thoroughfare. The contract price for such work was \$5,989, but additional paving ordered by the Board increased the price to \$6,982 47, from which was deducted \$81 45 for granite and wooden curbing not required, leaving the amount paid \$6,901 02. The work done under this contract consisted of twenty-six thousand seven hundred and sixty-two square feet of basalt block paving, four hundred and sixty linear feet of granite curbing, three hundred and forty linear feet of wooden curbing, and two cesspools.

A contract was entered into with F. H. Pitman on the twenty-first day of October, 1889, to pave with basalt blocks portions of Bay, Battery, and Davis Streets, and of the seawall thoroughfare. The following work was done:

WORK DONE.	Contract Price.	Amount.
96,741 square feet paving.....	\$0 22½	\$21,766 72
1,795½ linear feet stone curbing.....	1 08	1,939 14
2,083 linear feet wooden curbing.....	18	374 94
4 cesspools.....	120 00	486 00
5 drains.....	70 00	350 00
		\$24,910 80
9,970 square feet additional paving, at 21 cents.....		2,093 70
		\$27,004 50

A contract for paving portions of Broadway, Vallejo Street, and of the seawall thoroughfare, was entered into with John Hackett and John Sherry on the twenty-fifth day of November, 1889, and the following work was performed thereunder:

WORK DONE.	Contract Price.	Amount.
23,057 square feet paving.....	\$0 21	\$4,841 97
636 linear feet stone curbing.....	1 08	686 88
182 linear feet wooden curbing.....	20	36 40
2 angular corners.....	60 00	120 00
		\$5,685 25

By reference to the contracts for paving, in the financial statements in this and previous reports, it will be seen that the paved roadway extends from Section 1 of the seawall to the end of Sub-section 8 (b), a distance of six thousand six hundred and fifty feet, or one and one

quarter miles. Throughout this distance the roadway is paved with basalt blocks for a width of forty feet.

Proper entrances into the city's streets are provided as fast as the city authorities prepare their portions.

By the continued neglect of the city authorities to properly build and maintain that portion of the waterfront streets legally under their jurisdiction, the Board has been at times compelled to perform this work or subject the commerce of the port to delay and inconvenience.

REPIILING SEAWALL WHARF.

A contract was entered into with the San Francisco Bridge Company prior to, but no payment had been made thereon at the date of the last report, for repiling the wharf along Sections 1, 2, 3, and 4 of the seawall. The following work has been performed and paid for since:

Furnishing, driving, and fastening 1,077 piles at the contract price of \$12 87 per pile.....	\$13,860 99
Furnishing, fitting, and fastening 11,970 feet (B. M.) chocks at contract price of \$32 50 per M. feet.....	389 02
Putting in compound stringers, rebolting and refastening piles, etc.	147 00
	<hr/>
	\$14,397 01
Less deduction—cost of repairing gutter.....	36 00
	<hr/>
	\$14,361 01

CONSTRUCTION ACCOUNT.

This account embraces all contract work not relating directly to the seawall.

It is classed under three heads:

First—Work contracted for prior to and completed since June 30, 1888.

Second—Work contracted for and completed since June 30, 1888.

Third—Work contracted for but not completed June 30, 1890.

There is a marked difference in contract prices for repiling the various wharves; the wharves covered by sheds being more expensive to repile, as a greater length of time is necessary in which to do the work, and the contractor is required to repair the roofs of the sheds necessarily damaged by the piling.

First.

Pier to project from Stewart Street at foot of Harrison Street. Average length, 548½ feet, with a width of 80 feet. Date of contract, October 25, 1887. American Bridge and Building Company, contractor.

Contract price.....	\$32,833 00
Extras—2 brace piles and extra length on 72 fender piles.....	173 44
	<hr/>
	\$33,006 44
Less deduction for omission of 12 cluster piles.....	192 00
	<hr/>
	\$32,814 44

Of this amount, \$19,699 80 was paid prior to last report, and the balance, \$13,114 64, was paid since.

Pier and shed thereon, near the foot of Lombard Street; size of pier, 545 feet by 100 feet; size of shed, 520 feet by 90 feet. Date of contract, October 25, 1887. B. McMahon & Son, contractors.

Contract price.....	\$36,750 00
Extras on account of change of location:	
17 extra piles.....	\$321 47
Extra length on 1,070 piles.....	1,400 91
Extra lumber, 8,880 feet.....	217 56
	<hr/>
	1,939 94
	<hr/>
	\$38,689 94

Of this amount, \$25,193 25 was paid prior to last report; the balance, \$13,496 69, was paid since.

Repiling Washington-Street Pier (this pier is covered with a shed).
Date of contract, March 20, 1888. B. McMahon & Son, contractors.

Furnishing, driving, and fastening 333 piles, at contract price of \$21 25 per pile.....	\$7,076 25
Furnishing, fitting, and fastening 18,208 feet (B. M.) lumber, at contract price of \$37 50 per M. feet.....	682 80
	<hr/>
	\$7,759 05

Repiling Berry-Street Pier. Date of contract, May 24, 1888. American Bridge and Building Company, contractor.

Furnishing, driving, and fastening 271 piles, at contract price of \$13 45 per pile.....	\$3,644 95
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Second.

Paving portion of East Street, between Market and Howard Streets, with basalt blocks. Date of contract, September 24, 1888. J. W. McDonald, contractor.

Contract price.....	\$9,199 00
Extra filling, 2,975 cubic yards.....	892 50
	<hr/>
	\$10,091 50

Rebuilding south side and east end of Union-Street Wharf. Date of contract, October 29, 1888. B. McMahon & Son, contractors.

Furnishing, driving, and fastening 400 piles, at contract price of \$12 25 per pile.....	\$4,900 00
Furnishing, fitting, and fastening 29,918 feet (B. M.) lumber, at contract price of \$23 per M. feet.....	688 11
	<hr/>
	\$5,588 11

Rebuilding north side and east end of Green-Street Wharf. Date of contract, October 29, 1888. B. McMahon & Son, contractors.

Furnishing, driving, and fastening 478 piles, at contract price of \$12 10 per pile.....	\$5,783 80
Furnishing, fitting, and fastening 27,787 feet (B. M.) lumber, at contract price of \$23 per M. feet.....	639 10
	<hr/>
	\$6,422 90

Pier to project from Brannan Street near the foot of Fremont Street. Average length, 702½ feet, with a width of 100 feet, and an approach having an average length of 194 feet, and a width of 70 feet. Date of contract, January 15, 1889. San Francisco Contracting Company, contractor.

Contract price.....	\$32,723 00
Less deduction—allowance for coating on 15 fender piles.....	262 50
	<hr/>
	\$32,460 50

Coating piles with "Key West Pile Armor." Date of contract, January 15, 1889. M. Connell, contractor.

Coating 53,605 linear feet of piling, at contract price of 35 cents per foot.....	\$18,761 75
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Apron and slip to project from Section 7, seawall, between Jackson and Washington-Street Piers. Date of contract, April 15, 1889. B. McMahon & Son, contractors.

Contract price.....	\$2,500 00
Addition to contract:	
Forty-four piles, at \$26 88	\$1,182 72
Nine piles, at \$22 75	204 75
Apron, as per agreement	675 00
Four men and driver, one half day.....	18 00
	2,080 47
	\$4,580 47

Three connecting wharves in Brannan Street, 118½ feet by 74 feet, 100 feet by 74 feet, and 85 feet by 72 feet, and replanking portions of adjacent structures. Date of contract, May 8, 1889. B. McMahon & Son, contractors.

Contract price.....	\$9,100 00
One hundred additional piles, at \$11 50 per pile.....	1,150 00
	\$10,250 00

Repiling and repairing Broadway Wharf No. 2 (this wharf is covered with a shed). Date of contract, May 23, 1889. San Francisco Bridge Company, contractor.

Furnishing, driving, and fastening 40 standard piles, at contract price of \$18 53 per pile.....	\$741 20
Furnishing, driving, and fastening 118 fender piles, at contract price of \$17 03 per pile.....	2,009 54
Furnishing, driving, and fastening 30 brace piles, at contract price of \$22 74 per pile.....	682 20
Furnishing, fitting, and fastening 4,976 feet (B. M.) lumber, at contract price of \$30 90 per M. feet.....	153 76
	\$3,586 70

Two office buildings on wharf of Section 7 of seawall, opposite Washington-Street Pier—each 32 feet long, 19 feet wide, with 12 feet height of story. Date of contract, July 10, 1889. Peter Ahern, contractor.

Contract price.....	\$1,479 00
Extras, change in plans, etc.	105 00
	\$1,584 00

Coating piles with "Key West Pile Armor," also called "Vulcan Pile Armour." Date of contract, August 6, 1889. M. Connell, contractor.

Thirty-five thousand and seventy-five linear feet of piles coated at contract price, at 40 cents per foot.....	\$14,029 92
Extra—coating 900 linear feet of 16-inch piles, at 10 cents per foot, extra	90 00
	\$14,119 92

Repiling Folsom-Street Pier No. 1 (this pier is covered with a shed). Date of contract, August 15, 1889. B. McMahon & Son, contractors.

Furnishing, driving, and fastening 269 piles, at contract price of \$25 96 per pile.....	\$6,983 24
Furnishing, fitting, and fastening 943 feet (B. M.) lumber, at contract price of \$36 per M. feet.....	33 95
	<hr/>
	\$7,017 19
Less deduction—allowance for 75 feet coating on 5 piles, at 40 cents per foot.....	30 00
	<hr/>
	\$6,987 19

Repiling and repairing Folsom-Street Pier No. 2. Date of contract, August 16, 1889. San Francisco Bridge Company, contractor.

Furnishing, driving, and fastening 98 piles, at contract price of \$18 49 per pile.....	\$1,812 02
Furnishing, fitting, and fastening 3,556 feet (B. M.) lumber, at contract price of \$30 per M. feet.....	106 68
Three hundred and sixty-one feet extra planking and curbing....	7 94
	<hr/>
	\$1,926 64

Rebuilding sides of Mission-Street Pier No. 1. Date of contract, March 17, 1890. San Francisco Bridge Company, contractor.

Furnishing, driving, and fastening 182 fender piles, at contract price of \$12 per pile.....	\$2,184 00
Furnishing, driving, and fastening 148 brace piles, at contract price of \$17 per pile.....	2,516 00
Furnishing, fitting, and fastening 73,333 feet (B. M.) lumber, at contract price of \$25 per M. feet.....	1,833 33
	<hr/>
	\$6,533 33

Repiling and repairing Green-Street Pier. Date of contract, April 5, 1890. B. McMahon & Son, contractors.

Furnishing, driving, and fastening 126 piles, at contract price of \$13 50 per pile.....	\$1,701 00
Furnishing, fitting, and fastening 240 feet (B. M.) lumber, at contract price of \$22 50 per M. feet.....	5 40
	<hr/>
	\$1,706 40

Repiling and repairing Vallejo-Street Pier. Date of contract, April 17, 1890. Darby Laydon, contractor.

Furnishing, driving, and fastening 115 piles, at contract price of \$13 37 per pile.....	\$1,537 55
Furnishing, fitting, and fastening 21,618 feet (B. M.) lumber, at contract price of \$23 75 per M. feet.....	513 43
Extra—furnishing, driving, and fastening 39 brace piles, at \$17 per pile.....	663 00
	<hr/>
	\$2,713 98

Repiling and repairing Howard-Street Pier No. 3. Date of contract, April 21, 1890. Darby Laydon, contractor.

Furnishing, driving, and fastening 84 piles, at contract price of \$14 87 per pile.....	1,249 08
Furnishing, fitting, and fastening 3,914 feet (B. M.) lumber, at contract price of \$26 75 per M. feet.....	104 70
	<hr/>
	\$1,353 78

Float and gang plank for boat landing between Howard-Street Pier No 3 and Folsom-Street Pier No. 1. Date of contract, April 24, 1890. Alexander Hay, contractor.

Contract price.....	\$1,390 00
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Paving portion of East Street, between Market and Mission Streets, with basalt blocks. Date of contract, June 5, 1890. J. W. McDonald, contractor.

Contract price \$1,491 00

Third.

Rebuilding Ferry Slip No. 1 and Clay-Street Pier. Date of contract, August 27, 1889. B. McMahon & Son, contractors.

Contract price.....\$26,250 00
Amount paid on account.....19,895 62

Shed on Clay-Street Pier. Length, 360 feet, with a width of 76 feet for 200 feet, and of 46 feet for 160 feet. Date of contract, March 10, 1890. B. McMahon & Son, contractors.

Contract price.....\$5,370 00
Amount paid on account.....2,819 25

DREDGING.

The greater depth of water necessary to accommodate the increased draft of larger vessels coming to this port, and the crowded slips interfering with the full movement of the dredgers, caused the number of yards dredged during the last two fiscal years to be smaller than the amount usually dredged.

During the fiscal year ending June 30, 1889, the cost of repairs to the plant was heavy, thereby increasing the total expenditures for this department to \$62,424 96, while the number of yards dredged (five hundred and thirty-six thousand eight hundred) was far less than in preceding years, and was mainly owing to the prolonged and difficult dredging for the seawall, being a crowded and narrow space through several wharves filled with stumps, stones, and various other obstructions.

This increase in the expenditures, and decrease in the number of yards dredged, increased the cost of dredging to \$11 62 per cubic yard.

During the fiscal year ending June 30, 1890, there were dredged six hundred and forty-five thousand three hundred cubic yards, at a cost of \$51,588 91, or \$7 99 per cubic yard, which is about the average cost.

The details of the work done, and expenditures made by this department, will be found in the tabulated statement on page 25.

No additions have been made to the plant for several years, but it will be necessary to add to and replace much of it at an early day.

PILE DRIVING.

The Board now owns two pile-drivers (one scow and one top driver), which have been operated to their full capacity since their construction.

OUTSTANDING LEASES.

The only unexpired lease of waterfront property is that of the Pacific Mail Steamship Company, which yields a monthly rental of \$1,250, and which will expire January 6, 1892.

PRESERVATION OF PILES.

The Board has not yet felt justified in incurring the expense of a costly creosoting plant without further experiments. To this end, various preparations of asphaltum, limestone, canvas, burlap, ship felt, etc., have been thoroughly experimented with. Whilst the time is too short to determine the absolute value of these trials, it is certain that a wide range of experience has been had, valuable in guiding to the final solution of this vital problem. Two carloads of thoroughly creosoted piles have been secured from the San Pedro works, and driven in the most exposed portions of the front. The engineer of the Board has carefully examined the most recently built creosoting plants on this and the Atlantic Coast, and reports of their operations are on file.

REROOFING AND REPAINTING SHEDS.

The Board has under its jurisdiction some twenty acres of sheds. The oldest of these have been reshingled, and the roofs and sides given two coats of paint. Since the date of the last report, the sheds on Washington and Jackson-Street Piers have been reshingled and painted, and the inside whitewashed. The grain sheds, and the sheds on Broadway Nos. 1 and 2, and Mission and Folsom-Street Piers, have been repaired and repainted, as well as minor structures. The outlay thus incurred is justified by the greater protection to merchandise, and by the greater durability and improved appearance of the waterfront property.

EXAMINATION OF BOOKS AND ACCOUNTS.

Believing that the accounts of all public officers, particularly of those who are charged with the receiving and disbursement of public funds, should be often and thoroughly examined, the Board has on several occasions during the last two years employed Mr. Julian B. Harries, a competent and experienced accountant, to examine the books, vouchers, and accounts of this office. Mr. Harries has submitted three reports of his investigations, covering the period from March 26, 1883, to the thirtieth day of June, 1890, all of which are on file. The Board submits herewith a copy of his last report, omitting the other two on account of their length:

320 SANSOME STREET, ROOM 19, }
SAN FRANCISCO, September 20, 1890. }

To the honorable State Harbor Commissioners, San Francisco:

GENTLEMEN: Since the date of my last report, March 24, 1890, I have examined the books and accounts of the department up to June 30, 1890, and beyond one or two trifling omissions since rectified, I find everything correct.

My examinations, as you are aware, antedate the biennial report just drafted, as well as the preceding one; therefore, I am in a position to speak from actual facts and figures. The department in its march of improvement has now come down to good systematic work, keeping always in view the doubt check principle; and as a meed of merited praise to the employés, I would add that I consider your books and accounts would compare favorably with any other governmental department.

On the seventeenth instant, I addressed a letter to State Controller John P. Dunn, Esq., asking what balance stood to the credit of the San Francisco Harbor Improvement Fund on June 30, 1890; also what drafts remained unpaid up to and inclusive of No. 343 (the last that was drawn in June). Inclosed herewith I send you the State Controller's reply, wherein he states that, according to his books, the account stood as follows:

June 30, 1890—Balance on hand to credit of San Francisco Harbor Improvement Fund	\$267,630 52
Deduct drafts drawn and not presented, Nos. 335, 336, 340, 341, 342, and 343....	14,374 29
	<hr/>
	\$253,256 23
Add balance of June cash remitted to State Controller, as per his receipt....	19,280 93
	<hr/>
	\$272,537 16

This sum is 4 cents in excess of your ledger balance.

With regard to the biennial report, now ready for the printer's hands, I would state that I have gone over all the receipts, disbursements, drafts drawn, and other figures connected therewith, and find them strictly correct.

Hoping that the present satisfactory working of your department will be ever maintained, I have the honor to be, gentlemen,

Your obedient servant,

JULIAN B. HARRIES,
Accountant.

CHANGE IN THE SYSTEM OF COLLECTING TOLLS.

On September 26, 1889, the Board passed an order that very materially changed the system of collecting tolls, to take effect on November 1, 1889, prior to which time tolls were paid on merchandise as it passed over the various wharves by teamsters, consignees, owners, and others. The system was an expensive one, as it required a Collector to be stationed at each wharf, each Collector receiving a monthly salary of \$100, fixed by law. The term for which Collectors are appointed, also fixed by law, is four years, and the Board doubted its power to remove a Collector before the expiration of his term, which would not occur before 1891.

By the change in the manner of collecting tolls the Board would be able to dispense with the services of twenty Collectors, thereby decreasing the expense of collecting tolls \$2,000 per month. But, unless the Board had the power to remove a Collector prior to the expiration of his term of office, there would be nothing gained by the contemplated change of system; on the contrary, there would be a decided loss. Therefore, on July 16, 1889, the Board removed a Collector named Ford, and tendered him his salary earned at the date of removal. Ford demanded his salary for the full month, and denied the power of the Board to remove him, and brought an action in the Supreme Court of the State to compel the Board to pay him the sum of \$30, as and for a balance due him on account of his salary as Collector for the month ending July 25, 1890. This brought the question as to the power of the Board in the premises fairly before the Supreme Court of the State. The case was argued by Hon. Jas. G. Maguire, on behalf of the Collector, and by Hon. W. W. Morrow and T. C. Coogan, Esq., on behalf of the Board, and on October 1, 1889, the Court rendered its decision, fully sustaining the position taken by the Board. (The case will be found reported in the 81 Cal. Reports, pages 19 to 37.)

By this system of collecting tolls the owner, agent, manager, consignee, master, or person in command of any vessel must, at the time of her arrival at a wharf, if she has a cargo to discharge, and before her departure, if she has taken a cargo on board, deliver to the Collector at the wharf a full and correct statement of all merchandise to be discharged from or that has been received on board such vessel, and must pay to the Collector the tolls due thereon according to the schedule of rates fixed by the Board.

As soon after the first of November, 1889, as the business of the wharves would permit, the Board removed nineteen more Collectors, making twenty in all, and thereby reduced the expenses of collecting tolls \$2,000 per month.

After a practical working of the system for the last eight months the Board is satisfied that the change has proved to be a judicious one, for although the revenue collected from tolls during that period is less than during the corresponding period under the former system, yet it is fully accounted for by the fact that on November 21, 1889, the Board abolished all tolls on grain, flour, and mill stuffs passing over the wharves under its jurisdiction, the order taking effect on December 1, 1889, and thereby very materially reducing the revenue from tolls.

PASSENGER DEPOT AND BELT RAILROAD.

Seawall and Passenger Depot at Foot of Market Street.

Sub-section 8 (a) will extend from the center line of Clay Street to the north end of Sub-section 8 (b) already built, and will complete the seawall across the important space fronting the passenger ferry slips at the foot of Market Street. This sub-section is about four hundred feet long, and will cost about \$120,000. It is the purpose of the Board to let this section, as soon as it can be done without subjecting the public to the great inconvenience of the change during the rainy season.

The seawall as thus built will serve as the foundation for the west front of a large passenger depot, designed to be about eight hundred feet long and one hundred and fifty feet wide. The east front will rest upon heavy concrete piers about forty feet apart, and costing in the aggregate some \$42,000.

This building is designed to accommodate the passenger traffic reaching the foot of Market Street. It will be two stories high, with a central portion one story higher. The second story will be reached by a steel bridge over East Street, and extending to the south side of Sacramento Street, and connected directly with the upper decks of steamers. The principal materials of construction will be iron, steel, and glass. It is estimated, with the bridge and approaches, to cost about \$504,000.

Upon the commencement of Sub-section 8 (a), it will be necessary to commence the condemnation of a small triangle at the intersection of East and Sacramento Streets. In this connection it is proper to call attention to the fact that no authorization exists for the acquisition of the necessary space for the abutment and steps for the west end of the overhead steel bridge above mentioned, and to the necessity for the enactment of suitable laws giving the Board this power.

Since the laws creating the Board and defining its duties and responsibilities were passed, additional duties have been imposed. The concentration of a vast local and transcontinental passenger traffic at the foot of Market Street, and the need of building a belt railroad around the State's waterfront properties, have imposed obligations upon the Board beyond the limits of their present revenues. There can be no doubt of the advantages to the State at large of the past policy of the Board regarding the absolute ownership and control by the State of all the waterfront property, and the structures thereon. No person nor corporation should own any structure whatever upon the State property,

nor should such structure, when built by the State, be under the exclusive control of any person or corporation.

And, although the time is at hand when the public need for suitable passenger accommodations at the foot of Market Street is great, and our commercial necessities demand the most complete facilities for rapid handling of freights, no step should be taken which would in any way tend to impair the absolute control by the State of the vast interests of the waterfront. The direct revenues of the Board are sufficient, when wisely expended, for the maintenance and extension of the waterfront and seawall, as originally provided for by law, but not for meeting the additional burdens above mentioned. It is believed that these burdens may be borne without the addition of one dollar of taxation upon the citizens of the State.

The State has now reclaimed from the bay, by the construction of the seawall already built, thirty and one half fifty-vara lots (in a former report this area has been given as thirty-three and one third fifty-vara lots; but since that report, Lot No. 4 has been decided by the Courts to be partly owned by private parties). These are worth at least \$1,500,000. By the extension of the seawall westwardly to Van Ness Avenue, at a cost of about \$440,000, a large and more valuable area will be reclaimed. The grading of these lots will cost about \$200,000, so that by this extension, at a gross cost of \$640,000, the State will be in the possession of property of a minimum value of \$1,500,000 in addition to that now reclaimed. There is no need of funds for carrying out this work, as its prosecution comes under the regular expenditures of the San Francisco Harbor Improvement Fund, as provided by law. The Board purposes to make this extension of the seawall as rapidly as circumstances will permit, so that in a few years the State lots will aggregate over sixty fifty-vara lots, and a value of at least \$3,000,000.

The Belt Railroad.

The Belt Railroad is already under construction in the building of the freight ferry slip on Section 4 of the seawall, at the foot of Lombard Street. The Board intends to lay a double track steel railroad (with a third rail for accommodating narrow gauge cars) from this slip both ways, to Powell Street on the west and to Pacific Street on the southeast. The building and equipping of this road will cost about \$95,000. Just west of Lombard Street a sidetrack is designed for making up trains for the slip. No other sidings or depot tracks are provided for. Proper facilities of this kind should be secured by all railroad companies reaching the city, but under no circumstances should such tracks be allowed on the seawall thoroughfare.

The connection of the northern portion of the belt railroad with the system entering at Second Street by ferry from Oakland has been closely considered by the Board. To extend the railroad south of Market Street in the present condition of the front would subject the Board to one of two serious dilemmas—either to sacrifice very important wharves and piers, or to acquire the right of way over costly private property. After the completion of nearly a mile of seawall south of Market Street, these difficulties of this line will be removed, except the complicated crossing of the street railroad termini at the foot of Market Street.

To avoid this delay, and at the same time reap the benefits of a com-

plete belt railroad at an early day, the Chief Engineer of the Board has suggested a road from Section 6 of the seawall down Drumm Street to Main Street, and along Main Street to the waterfront, and thence across the State's properties to the foot of Second Street, thus giving the desired connection.

There can be no doubt of the advantages of this route as compared with the waterfront route across the foot of Market Street, and as the district traversed is entirely devoted to manufacturing and mercantile interests, the property holders would not offer any serious objections to such route, especially when confronted with the disadvantages to which their properties would be subjected should the other route be ultimately adopted. As a surface road (to be utilized only at such hours of the night as may be designated) this road would cost about \$185,000.

The Board is therefore called upon to meet the following expenditures, outside those contemplated in the law, yet within the just requirements of its duties and policy:

<i>First</i> —The passenger depot.....	\$504,000 00
<i>Second</i> —The northern end of the belt railroad.....	95,000 00
<i>Third</i> —The connection with the southern portion of the city.....	185,000 00
Total	\$784,000 00
Or in round numbers, \$800,000.	

To meet this, the Board recommends the authorization of the issuance (as required for the purposes) of 4 per cent bonds to the extent of \$800,000. To provide for the interest and redemption of these bonds, it is recommended that the revenue derived from the depot building and the belt railroad be appropriated as a Sinking Fund, to be increased, if necessary, by the rentals from the seawall lots. It will be observed, that for the retirement of these bonds the State can thus set apart the revenue from at least \$3,800,000 worth of the most valuable property on the waterfront of the city.

Respectfully submitted.

WM. D. ENGLISH,
CHAS. O. ALEXANDER,
W. H. BROWN,
State Harbor Commissioners.

RECEIPTS AND DISBURSEMENTS FOR THE TWO FISCAL YEARS ENDING
JUNE 30, 1890.

RECEIPTS.	1888-9.	1889-90.	Total.
Section 1, Seawall Wharf	\$12,308 89	\$12,330 20	\$24,639 09
Section 2, Seawall Wharf	8,783 15	8,283 54	17,066 69
Section 3, Seawall Wharf	14,051 35	10,628 68	24,680 03
Section 4, Seawall Wharf	12,824 50	10,420 16	23,244 66
Fishermen's Wharf	2,912 00	3,787 85	6,699 85
Union-Street Wharf	14,802 35	16,411 73	31,214 08
Green-Street Wharf	16,376 05	16,138 99	32,515 04
Vallejo-Street Wharf	11,275 95	12,074 51	23,350 46
Broadway Wharves Nos. 1 and 2	31,865 70	2,724 80	34,590 50
Broadway Wharf No. 1		15,692 63	15,692 63
Broadway Wharf No. 2		13,085 02	13,085 02
Pacific-Street Wharf	24,203 60	21,226 85	45,430 45
Jackson-Street Wharf	13,608 30	16,256 17	29,864 47
Washington-Street Wharf	16,021 90	13,744 22	29,766 12
Ferries	89,717 95	84,901 17	174,619 12
Mission-Street Wharf No. 1	14,439 75	12,177 63	26,617 38
Mission-Street Wharf No. 2	18,022 10	20,203 12	38,225 22
Howard-Street Wharf No. 1	17,438 95	15,092 71	32,531 66
Howard-Street Wharf No. 2	14,221 45	13,902 20	28,123 65
Howard-Street Wharf No. 3	13,568 00	10,687 02	24,255 02
Folsom-Street Wharves Nos. 1 and 2	28,487 15	2,432 40	30,919 55
Folsom-Street Wharf No. 1		10,932 10	10,932 10
Folsom-Street Wharf No. 2		10,986 05	10,986 05
Harrison and Spear-Street Wharves	41,508 05	3,435 95	44,944 00
Harrison-Street Wharf		14,977 78	14,977 78
Steuart-Street Wharf		7,613 15	7,613 15
Spear-Street Wharf		14,751 39	14,751 39
Main-Street Wharf	22,195 00	17,400 50	39,595 50
Beale-Street Wharf	36,265 70	26,184 02	62,449 72
Fremont-Street Wharf		7,843 28	7,843 28
Third and Berry-Street Wharves	25,737 15	1,955 15	27,692 30
Third-Street Wharf		9,328 99	9,328 99
Berry-Street Wharf		12,475 75	12,475 75
Channel-Street Wharf	6,348 85	5,992 45	12,341 30
Center-Street Wharf	3,000 00	3,000 00	6,000 00
Merchants' Dry Dock	6,000 00	6,000 00	12,000 00
Pacific Mail Steamship Company	15,000 00	15,000 00	30,000 00
Southern Pacific Company (rent)	19,200 00	19,200 00	38,400 00
Southern Pacific Company (tolls)	50,283 69	48,206 09	98,489 78
United States Barge Office	240 00	240 00	480 00
Space for scales	1,260 00	1,342 50	2,602 50
Space for lumber	678 30	1,785 45	2,463 75
Revenue from seawall lots	13,243 35	23,131 65	36,375 00
Sale of old material (urgent repairs)	1,551 98	1,931 00	3,482 98
Sale of old material (pile driving)	623 70	1,581 81	2,205 51
Sale of old material (Dredger No. 2)	100 90		100 90
Sale of old material (tug "Anasha")	5 25		5 25
Sale of old material (tug "Gov. Irwin")	3 93		3 93
Sale of old material (seawall account)	762 00		762 00
Dredging (Dredger No. 1)	160 00	400 00	560 00
Dredging (Dredger No. 2)		520 00	520 00
Pacific Mail Steamship Company (tolls)	10 00		10 00
Sale of merchandise left on wharves	13 60	31 00	44 60
Received for use of Ferry Railroad Track		100 00	100 00
Overcharge in gas bills refunded		103 58	103 58
Received from vessels—damages to wharves	417 00	454 34	871 34
	\$619,537 54	\$599,105 58	\$1,218,643 12
Amount drawn from San Francisco Harbor Im- provement Fund	247,137 61	311,633 96	558,771 57
Totals	\$866,675 15	\$910,739 54	\$1,777,414 69

RECEIPTS AND DISBURSEMENTS—Continued.

DISBURSEMENTS.	1888-89.	1889-90.	Total.
Salaries of Commissioners, Secretaries, and Clerks.....	\$16,352 45	\$17,047 40	\$33,399 85
Salaries of Chief Engineer and Assistants	6,600 00	6,875 00	13,475 00
Salaries of Chief Wharfinger and Assistant	4,800 00	4,770 00	9,570 00
Salary of Attorney	2,400 00	2,400 00	4,800 00
Salaries of Wharfingers	31,410 60	31,274 20	62,684 80
Salaries of Collectors	40,651 60	26,169 30	66,820 90
Salaries of Watchmen.....	2,700 00	2,111 55	4,811 55
Expense account (rent, printing, stationery, keeping horses, lighting wharves, sprinkling roadways, etc.)	15,290 09	20,836 33	36,126 42
Urgent repairs	41,473 59	50,128 00	91,601 59
Repairs, including lumber (by contract).....	58,202 71	68,885 58	127,088 29
Pile driving	66,691 13	65,475 05	132,166 18
Cleaning wharves	15,812 60	16,177 58	31,990 18
Wharf offices and furniture	135 58	312 67	448 25
Legal expenses	660 05	660 85	1,320 90
Fire account	4,941 55	4,983 65	9,930 20
Dredger No. 1	14,659 31	14,444 51	29,103 82
Dredger No. 2	24,526 90	15,019 82	39,546 72
Tug "Anasha"	10,381 94	9,394 62	19,776 56
Tug "Gov. Irwin"	12,856 81	12,729 96	25,586 77
Construction account.....	64,850 83	116,261 88	181,112 71
Seawall account	99,765 47	97,632 20	197,397 67
Improving seawall lots (including paving, sewerage, and curbing)	1,820 77	17,787 28	19,608 05
Dockage refunded	1,175 45	1,384 15	2,559 60
Tolls refunded	933 50	821 15	1,754 65
Wharfage refunded.....	339 72	277 75	617 47
Rent refunded	39 00	70 50	109 50
Fishermen's wharf (gas, water, cleaning market, etc.)	387 60	386 80	774 40
Profit and loss (damages to vessels)	10 78	268 56	279 34
Oregon Railway and Navigation Co., for loss of mer- chandise by falling of wharf, pursuant to Act of Legislature	5,000 00	-----	5,000 00
Gregory Valerrio, for loss of horse, pursuant to Act of Legislature	200 00	-----	200 00
Amount remitted to San Francisco Harbor Improve- ment Fund	\$545,070 03	\$604,591 34	\$1,149,661 37
Totals	321,605 12	306,148 20	627,753 32
Totals	\$866,675 15	\$910,739 54	\$1,777,414 69

STATEMENT OF THE SAN FRANCISCO HARBOR IMPROVEMENT FUND,
FOR THE TWO FISCAL YEARS ENDING JUNE 30, 1890.

1888.	Dr.		
July 14.	To amount remitted by Commissioners for July	\$6,000 00	
July 30.	To amount remitted by Commissioners for July	9,000 00	
July 31.	To amount remitted by Commissioners for July	4,500 00	
Aug. 4.	To amount remitted by Commissioners for July	6,894 08	\$26,394 08
Aug. 28.	To amount remitted by Commissioners for August	\$12,000 00	
Sept. 4.	To amount remitted by Commissioners for August	14,082 13	26,082 13
Sept. 28.	To amount remitted by Commissioners for September	\$10,000 00	
Sept. 29.	To amount remitted by Commissioners for September	5,500 00	
Oct. 4.	To amount remitted by Commissioners for September	8,589 79	24,089 79
Oct. 29.	To amount remitted by Commissioners for October	\$15,000 00	
Nov. 3.	To amount remitted by Commissioners for October	14,000 00	
Nov. 5.	To amount remitted by Commissioners for October	8,527 40	37,527 40
Dec. 3.	To amount remitted by Commissioners for November	\$9,000 00	
Dec. 5.	To amount remitted by Commissioners for November	20,371 31	29,371 31
1889.			
Jan. 4.	To amount remitted by Commissioners for December		28,365 20
Jan. 25.	To amount remitted by Commissioners for January	\$7,000 00	
Feb. 4.	To amount remitted by Commissioners for January	16,146 07	23,146 07
Mar. 4.	To amount remitted by Commissioners for February		26,587 06
April 3.	To amount remitted by Commissioners for March		20,836 36
May 2.	To amount remitted by Commissioners for April	\$13,000 00	
May 3.	To amount remitted by Commissioners for April	9,782 24	22,782 24
May 28.	To amount remitted by Commissioners for May	\$18,000 00	
June 4.	To amount remitted by Commissioners for May	11,173 58	29,173 58
July 3.	To amount remitted by Commissioners for June		27,249 90
Aug. 5.	To amount remitted by Commissioners for July		22,977 01
Sept. 4.	To amount remitted by Commissioners for August		28,751 19
Oct. 3.	To amount remitted by Commissioners for September		23,639 68
Nov. 5.	To amount remitted by Commissioners for October		27,161 42
Dec. 3.	To amount remitted by Commissioners for November	\$9,000 00	
Dec. 4.	To amount remitted by Commissioners for November	14,597 66	23,597 66
1890.			
Jan. 4.	To amount remitted by Commissioners for December		29,576 43
Feb. 1.	To amount remitted by Commissioners for January	\$10,000 00	
Feb. 4.	To amount remitted by Commissioners for January	18,821 38	28,821 38
Mar. 5.	To amount remitted by Commissioners for February		23,177 28
Mar. 26.	To amount remitted by Commissioners for March	\$17,000 00	
April 4.	To amount remitted by Commissioners for March	10,107 03	27,107 03
May 3.	To amount remitted by Commissioners for April		29,423 72
June 5.	To amount remitted by Commissioners for May		22,634 47
July 3.	To amount remitted by Commissioners for June		19,280 93
Total amount remitted			\$627,753 32
Balance in San Francisco Harbor Improvement Fund July 1, 1888			203,555 37
			\$831,308 69

STATEMENT OF THE SAN FRANCISCO HARBOR IMPROVEMENT FUND—Continued.

Cr.

Date.	ORDER.	No.	On Account of.	Amount.
1888.				
July 3.	J. C. Smith	191	Furnishing lumber	\$3,820 74
July 9.	Geo. D. Nagle and J. S. Antonelle	192	Constructing seawall	1,361 38
July 17.	S. F. Bridge Co.	193	Repiling Secs. 1, 2, 3, and 4, Seawall Wharf	1,447 88
July 19.	B. McMahon & Son....	194	Repiling Washington-Street Pier	7,759 05
July 26.	N. Richard	195	Furnishing piles	2,728 57
July 26.	J. C. Smith	196	Furnishing lumber	2,931 60
July 26.	American B. and B. Co.	197	Pier at foot of Harrison Street	13,114 64
July 26.	American B. and B. Co.	198	Repiling Berry-Street Wharf	3,644 95
Aug. 2.	S. F. Contracting Co. .	199	Constructing seawall	3,378 45
Aug. 7.	B. McMahon & Son....	200	Pier and shed thereon at foot of Lombard Street	13,496 69
Aug. 9.	S. F. Bridge Co.	201	Repiling Secs. 1, 2, 3, and 4, Seawall Wharf	3,139 50
Aug. 14.	S. F. Bridge Co.	202	Removing wharves in line of Section 7, seawall, and building and removing temporary connecting roadways for Jackson and Washington-Street Piers	1,125 00
Aug. 23.	N. Richard	203	Furnishing piles	4,530 79
Sept. 4.	S. F. Contracting Co. .	204	Constructing seawall	3,181 78
Sept. 20.	S. F. Bridge Co.	205	Repiling Secs. 1, 2, 3, and 4, Seawall Wharf	3,610 04
Sept. 20.	J. C. Smith	206	Furnishing lumber	6,189 97
Sept. 24.	D. H. Bibb	207	Furnishing piles	1,101 84
Sept. 24.	N. Richard	208	Furnishing piles	2,375 39
Sept. 24.	L. H. Pierson	209	Furnishing lumber	2,264 18
Oct. 3.	S. F. Contracting Co. .	210	Constructing seawall	2,301 58
Oct. 23.	S. F. Bridge Co.	211	Repiling Secs. 1, 2, 3, and 4, Seawall Wharf	6,163 59
Oct. 25.	D. H. Bibb	212	Furnishing piles	2,271 26
Oct. 25.	L. H. Pierson	213	Furnishing lumber	3,103 91
Nov. 1.	S. F. Contracting Co. .	214	Constructing seawall	5,804 73
Nov. 27.	L. H. Pierson	215	Furnishing lumber	2,855 54
Dec. 4.	S. F. Contracting Co. .	216	Constructing seawall	6,731 23
Dec. 11.	D. H. Bibb	217	Furnishing piles	1,809 58
Dec. 18.	J. W. McDonald	218	Paving, curbing, etc., on seawall	1,151 61
1889.				
Jan. 3.	S. F. Contracting Co. .	219	Constructing seawall	10,887 99
Jan. 7.	L. H. Pierson	220	Furnishing lumber	3,005 16
Jan. 15.	D. H. Bibb	221	Furnishing piles	1,972 99
Feb. 4.	S. F. Contracting Co. .	222	Constructing seawall	10,229 88
Feb. 4.	L. H. Pierson	223	Furnishing lumber	2,994 91
Feb. 7.	J. W. McDonald	224	Paving East Street, between Market and Howard	4,599 50
Feb. 12.	B. McMahon & Son....	225	Rebuilding portions of Union-St. Pier	4,106 25
Feb. 12.	B. McMahon & Son....	227	Rebuilding portions of Green-St. Pier	4,769 10
Mar. 1.	J. S. Antonelle	228	Constructing seawall	991 68
Mar. 1.	S. F. Contracting Co. .	229	Constructing seawall	7,697 52
Mar. 1.	D. H. Bibb	230	Furnishing piles	3,508 93
Mar. 5.	S. F. Contracting Co. .	231	Pier at foot of Fremont Street	2,208 80
Mar. 5.	L. H. Pierson	232	Furnishing lumber	2,441 97
Mar. 13.	J. W. McDonald	233	Paving East Street, between Market and Howard	4,599 50
Mar. 26.	D. H. Bibb	234	Furnishing piles	1,770 26
Mar. 26.	L. H. Pierson	235	Furnishing lumber	857 14
Mar. 26.	S. F. Bridge Co.	236	Removing wharves in line of Section 7, seawall, and building and removing temporary connecting roadways for Jackson and Washington-Street Piers	1,375 00
Mar. 28.	B. McMahon & Son....	237	Rebuilding portions of Green-Street Pier, etc.	1,653 80
Mar. 28.	B. McMahon & Son....	238	Rebuilding portions of Union-Street Pier	1,481 86

STATEMENT OF THE SAN FRANCISCO HARBOR IMPROVEMENT FUND—Continued.

Date.	ORDER.	No.	On Account of.	Amount.
Mar. 28.	B. McMahon & Son....	239	Sewer at foot of Washington Street....	\$1,182 50
Mar. 28.	Jas. J. O'Connor.....	240	Sewer in Bay Street, between Dupont and Kearny.....	775 52
April 2.	S. F. Contracting Co.....	241	Constructing seawall.....	7,238 60
April 2.	J. S. Antonelle.....	242	Constructing seawall.....	510 54
April 9.	S. F. Contracting Co.....	243	Pier at foot of Fremont Street.....	736 27
April 9.	J. W. McDonald.....	244	Extra filling—paving East Street, be- tween Market and Howard.....	892 50
April 25.	D. H. Bibb.....	245	Furnishing piles.....	2,132 95
April 25.	Pretorious & Lemmer.....	246	Boiler for dredger.....	2,789 00
May 2.	S. F. Contracting Co.....	247	Constructing seawall.....	7,639 34
May 2.	J. S. Antonelle.....	248	Constructing seawall.....	408 75
May 2.	M. Connell.....	249	Coating piles with Key West Pile Ar- mor.....	1,802 33
May 7.	S. F. Contracting Co.....	250	Pier at foot of Fremont Street.....	490 85
May 9.	S. F. Contracting Co.....	251	Constructing seawall.....	2,362 50
May 9.	J. W. McDonald.....	252	Paving on seawall, opposite Merchant Street.....	900 81
May 9.	Paraffine Paint Co.....	253	Protecting piles.....	775 25
May 23.	D. H. Bibb.....	254	Furnishing piles.....	1,425 39
May 24.	Oregon R. R. & N. Co.....	255	Loss of merchandise by falling of Spear-Street Wharf, pursuant to Act of Legislature.....	5,000 00
May 28.	M. Connell.....	256	Coating piles with Key West Pile Ar- mor.....	6,898 76
May 31.	S. F. Contracting Co.....	257	Constructing seawall.....	5,956 10
June 4.	J. S. Antonelle.....	258	Constructing seawall.....	3,582 60
June 4.	S. F. Contracting Co.....	259	Pier at foot of Fremont Street.....	6,871 83
June 24.	D. H. Bibb.....	260	Piles furnished.....	2,217 51
July 2.	M. Connell.....	261	Coating piles with Key West Pile Ar- mor.....	10,060 66
July 2.	S. F. Bridge Co.....	262	Repling Broadway Wharf No. 2.....	3,586 70
July 2.	S. F. Contracting Co.....	263	Pier at foot of Fremont Street.....	6,135 56
July 2.	J. S. Antonelle.....	264	Constructing seawall.....	5,800 94
July 11.	Ventura Asphalt Co.....	265	Coating piles.....	1,344 30
July 16.	B. McMahon & Son.....	266	Ferry slip between Jackson and Washington-Street Piers.....	2,500 00
July 16.	B. McMahon & Son.....	267	Connecting wharves along Brannan Street, etc.....	2,730 00
July 24.	D. H. Bibb.....	268	Furnishing piles.....	1,618 88
July 26.	Peter Ahern.....	269	Building on Section 7, seawall, oppo- site Washington-Street Wharf.....	554 63
July 30.	B. McMahon & Son.....	270	Connecting wharves along Brannan Street, etc.....	3,412 50
Aug. 2.	S. F. Contracting Co.....	271	Pier at foot of Fremont Street.....	16,017 19
Aug. 2.	J. S. Antonelle.....	272	Constructing seawall.....	9,724 50
Aug. 2.	B. McMahon & Son.....	273	Addition to ferry slip between Jack- son and Washington-Street Piers.....	2,080 47
Aug. 8.	B. McMahon & Son.....	274	Connecting wharves along Brannan Street, etc.....	3,607 50
Aug. 20.	B. McMahon & Son.....	275	Connecting wharves along Brannan Street, etc.....	500 00
1889.				
Aug. 20.	Peter Ahern.....	276	Two buildings on Washington-Street Pier.....	1,029 37
Sept. 2.	S. F. Contracting Co.....	277	Constructing seawall.....	27,491 98
Sept. 4.	J. S. Antonelle.....	278	Constructing seawall.....	10,653 32
Sept. 4.	Alexander Hay.....	279	Float and gang planks for boat landing	1,495 00
Sept. 17.	D. H. Bibb.....	280	Furnishing piles.....	1,232 84
Sept. 24.	A. E. Buckman.....	281	Sewering, paving, etc., at intersection of Battery with Greenwich Streets.....	692 90
Sept. 24.	C. B. Williams.....	282	Redwood and pipe sewer near the foot of Washington Street.....	1,442 40
Oct. 3.	J. S. Antonelle.....	283	Constructing seawall.....	3,701 25
Oct. 8.	S. F. Contracting Co.....	284	Constructing seawall.....	145 00
Oct. 10.	D. H. Bibb.....	285	Furnishing piles.....	2,452 44
Oct. 10.	Golden Gate Lum. Co.....	286	Furnishing lumber.....	625 34
Oct. 15.	Golden Gate Lum. Co.....	287	Furnishing lumber.....	2,345 88
Oct. 15.	M. Connell.....	288	Coating piles with Vulcan Pile Armor.....	4,739 20
Oct. 25.	Golden Gate Lum. Co.....	289	Furnishing lumber.....	1,057 81

STATEMENT OF THE SAN FRANCISCO HARBOR IMPROVEMENT FUND—Continued.

Date.	ORDER.	No.	On Account of.	Amount.
Nov. 2.	A. E. Buckman	290	Paving, curbing, etc., on Battery St., between Greenwich and East Sts.....	\$1,760 80
Nov. 2.	J. W. McDonald	291	Paving, curbing, etc., on Drumm St., bet. Broadway and Pacific Sts., etc.....	6,901 02
Nov. 12.	Golden Gate Lum. Co.	292	Furnishing lumber	2,602 13
Nov. 13.	J. S. Antonelle	293	Constructing seawall	4,047 75
Nov. 19.	M. Connell	294	Coating piles with Vulcan Pile Armor.....	3,861 12
Nov. 19.	S. F. Bridge Co.	295	Repiling Folsom-Street Pier No. 2	1,926 64
Nov. 29.	D. H. Bibb	296	Furnishing piles	4,113 31
Nov. 29.	Golden Gate Lum. Co.	297	Furnishing lumber	1,966 41
Dec. 3.	John Hackett and John Sherry	298	Paving portions of Bay, Battery, and Davis Sts., and seawall thoroughfare	4,343 63
Dec. 9.	J. S. Antonelle	299	Constructing seawall	913 50
Dec. 27.	D. H. Bibb	300	Furnishing piles	963 64
1890.				
Jan. 2.	J. S. Antonelle	301	Constructing seawall	1,585 80
Jan. 2.	M. Connell	302	Coating piles with Vulcan Pile Armor.....	2,944 40
Jan. 2.	B. McMahon & Son	303	Repiling Folsom-Street Pier No. 1	3,816 12
Jan. 7.	John Hackett and John Sherry	304	Paving portions of Bay, Battery, and Davis Sts., and seawall thoroughfare	3,012 00
Jan. 7.	Golden Gate Lum. Co.	305	Furnishing lumber	2,981 30
Jan. 28.	B. McMahon & Son	306	Rebuilding Ferry Slip No. 1 and Clay- Street Pier	5,432 25
Jan. 28.	D. H. Bibb	307	Furnishing piles	1,847 60
Jan. 30.	M. Connell	308	Coating piles with Vulcan Pile Armor.....	2,102 00
Jan. 30.	Golden Gate Lum. Co.	309	Furnishing lumber	2,258 70
Feb. 4.	J. S. Antonelle	310	Constructing seawall	5,346 00
Feb. 4.	John Hackett and John Sherry	311	Paving portions of Bay, Battery, and Davis Sts., and seawall thoroughfare	3,881 25
Feb. 6.	M. Connell	312	Coating piles with Vulcan Pile Armor.....	473 20
Feb. 11.	James V. Owens	313	Sewering, etc., in Montgomery Street.....	1,246 00
Feb. 13.	B. McMahon & Son	314	Repiling Folsom-Street Pier No. 1	3,171 07
Mar. 4.	J. S. Antonelle	315	Constructing seawall	7,710 79
1890.				
Mar. 4.	John Hackett and John Sherry	316	Paving portions of Bay, Battery, and Davis Sts., and seawall thoroughfare	4,913 94
Mar. 4.	B. McMahon & Son	317	Rebuilding Ferry Slip No. 1 and Clay- Street Pier	9,497 25
Mar. 4.	D. H. Bibb	318	Furnishing piles	3,694 66
Mar. 6.	Golden Gate Lum. Co.	319	Furnishing lumber	2,808 31
Mar. 24.	D. H. Bibb	320	Furnishing piles	2,011 62
Apr. 3.	J. S. Antonelle	321	Constructing seawall	6,341 62
Apr. 3.	John Hackett and John Sherry	322	Paving portions of Bay, Battery, and Davis Sts., and seawall thoroughfare	3,037 50
Apr. 3.	John Hackett and John Sherry	323	Paving on Broadway, Vallejo Street, and seawall thoroughfare	389 61
Apr. 3.	Golden Gate Lum. Co.	324	Furnishing lumber	2,870 10
Apr. 11.	B. McMahon & Son	325	Rebuilding Ferry Slip No. 1 and Clay- Street Pier	3,436 12
Apr. 24.	D. H. Bibb	326	Furnishing piles	1,950 37
Apr. 29.	Golden Gate Lum. Co.	327	Furnishing lumber	5,108 99
May 2.	J. S. Antonelle	328	Constructing seawall	2,706 90
May 2.	John Hackett and John Sherry	329	Paving portions of Bay, Battery, and Davis Sts., and seawall thoroughfare	7,816 18
May 13.	Darby Laydon	330	Repiling Howard-Street Pier No. 3	1,353 78
May 13.	S. F. Bridge Co.	331	Rebuilding sides of Mission-St. Pier.....	6,533 33
May 21.	Alexander Hay	332	Float and gangway for boat landing	1,390 00
May 27.	D. H. Bibb	333	Furnishing piles	2,565 74
May 29.	Darby Laydon	334	Repiling Vallejo-Street Wharf	2,713 98
May 29.	B. McMahon & Son	335	Shed on Clay-Street Pier	2,819 25
May 29.	B. McMahon & Son	336	Rebuilding Ferry Slip No. 1 and Clay- Street Pier	1,530 00

STATEMENT OF THE SAN FRANCISCO HARBOR IMPROVEMENT FUND—Continued.

Date.	ORDER.	No.	On Account of.	Amount.
June 3.	J. S. Antonelle	337	Constructing seawall	\$5,626 10
June 3.	Golden Gate Lum. Co. ..	338	Furnishing lumber	5,210 94
June 11.	John Hackett and John Sherry	339	Paving on Broadway, Vallejo Street, and seawall thoroughfare	5,295 64
June 17.	B. McMahon & Son....	340	Repiling Green-Street Pier	1,706 40
June 30.	D. H. Bibb	341	Furnishing piles	1,368 22
June 30.	Golden Gate Lum. Co. ..	342	Furnishing lumber	5,459 42
June 30.	J. W. McDonald	343	Paving East Street, between Market and Mission	1,491 00
				\$558,771 57
			Balance in San Francisco Harbor Improvement Fund	272,537 12
				\$831,308 69

STATEMENT OF COST OF DREDGING.

FISCAL YEAR ENDING—	Salary of Employés.	Repairs.	Coal.	Ship Chan- dery and Water.	Miscellaneous, including Docking Dredgers, Tugs, and Scaws.	Total.	No. Yards Dredged.	Worked. No. Hours.	Cost per Cubic Yard, Cents.
June 30, 1875	\$11,663 97	\$10,302 99	\$8,639 00	\$1,386 64	\$1,301 25	\$33,835 71	303,429	2,348 $\frac{3}{4}$	10.76-100
June 30, 1876	11,932 98	7,639 43	8,224 04	1,660 85	1,905 74	31,363 19	342,638	2,634	9.15-100
June 30, 1877	11,980 99	4,041 44	5,971 71	1,582 10	1,676 79	25,253 03	280,197	2,478 $\frac{1}{2}$	9.1-100
June 30, 1878	17,188 80	7,372 48	7,754 86	2,666 37	3,032 55	38,214 40	423,654	3,080	9.2-100
June 30, 1879	26,201 70	14,963 90	11,755 12	5,443 70	1,289 60	60,454 68	843,879	4,694	7.16-100
June 30, 1880	27,202 59	8,824 19	11,115 11	4,184 65	318 75	51,645 29	749,011	4,323	6.89-100
June 30, 1881	25,948 49	10,196 63	11,037 15	4,194 44	85 81	51,462 52	732,919	3,962 $\frac{1}{2}$	7.2-100
June 30, 1882	25,860 00	9,556 57	8,925 33	4,101 10	300 45	48,743 45	639,570	3,639 $\frac{1}{2}$	7.62-100
June 30, 1883	25,860 01	12,152 06	9,093 05	3,800 58	551 80	51,457 50	635,322	3,776 $\frac{3}{4}$	8.13-100
June 30, 1884	26,358 00	20,906 35	9,838 60	3,627 45	50 00	60,780 40	643,100	3,663 $\frac{1}{2}$	9.45-100
June 30, 1885	26,896 24	11,610 58	10,074 34	3,657 64	20 00	52,258 80	680,700	3,652 $\frac{1}{2}$	7.68-100
June 30, 1886	26,634 65	6,293 18	9,886 55	3,841 02	20 00	46,675 40	678,900	3,758 $\frac{1}{2}$	6.87-100
June 30, 1887	26,520 00	36,872 40	7,911 49	4,435 62	2,307 48	78,046 99	601,800	3,175 $\frac{1}{2}$	12.97-100
June 30, 1888	27,787 00	10,264 87	11,339 27	4,154 26	537 30	54,082 70	717,000	3,797 $\frac{1}{2}$	7.52-100
June 30, 1889	27,847 00	21,004 76	9,392 65	3,292 77	887 78	62,424 96	536,800	3,010	11.62-100
June 30, 1890	27,825 87	10,403 04	9,377 93	3,671 54	310 53	51,588 91	645,300	3,298	7.99-100

BALANCE SHEET.

From November 4, 1863, to June 30, 1890.

RECEIPTS.		
From dockage, tolls, wharfage, rents, etc.		\$10,107,489 46
DISBURSEMENTS.		
Salaries of Commissioners, Secretaries, Engineers, Attorneys, Wharfingers, and Collectors, law fees, fuel, rent, stationery, etc.	\$2,241,849 33	
Constructing and repairing wharves, sheds, etc.	3,817,933 86	
Construction of seawall and improving seawall lots.	2,355,851 29	
Purchase of and constructing dredgers, tugs, and scows.	145,587 58	
Dredging (cost of)	1,179,597 00	
Payroll of crew of fireboat.	46,655 31	
Suspense account (defalcations of John S. Gray)	23,308 10	
Miscellaneous (loss of merchandise by breaking down of wharves, and damages to vessels and other property)	24,169 87	
Cash in the treasury	272,537 12	
<i>Dr.</i> CASH.		10,107,489 46
To amount remitted to the State Treasurer		\$5,853,066 35
<i>Cr.</i> CASH.		
By amount drawn from State Treasurer	\$5,580,529 23	
By cash on hand in the treasury	272,537 12	
		5,853,066 35

REPORT OF DENNIS SPENCER, ATTORNEY.

To the honorable Board of State Harbor Commissioners of the State of California:

GENTLEMEN: I herewith present my report as attorney of your honorable Board, showing what has transpired in relation to litigation in charge of your attorney during the two fiscal years ending June 30, 1890.

ACTIONS PENDING AT THE DATE OF LAST REPORT.

The Pacific Transfer Company vs. Wm. Blanding et al. In Superior Court, Department No. 6, No. 23360.

J. E. McElrath, Esq., attorney for plaintiff.

Action to recover money paid under protest by plaintiff to defendants for wharfage.

1879, October 24, complaint filed. 1880, December 23, answer of William Blanding and A. M. Burns filed. 1881, January 10, answer of Bruce B. Lee filed. 1887, August 29, supplemental answer of William Blanding filed. August 29, action tried before Hon. Wm. T. Wallace, who, on January 4, 1888, ordered judgment to be entered in favor of defendants. 1888, June 6, findings filed. June 7, notice of decision served and filed. June 12, cost bill served and filed. June 13, judgment entered for defendants; notice of same served and filed. June 19, notice that plaintiff intends to move for a new trial received. September 8, plaintiff's proposed statement on motion for a new trial received. September 13, defendants' proposed amendments served. September 19, notice that plaintiff rejects defendants' proposed amendments received. 1889, February 1, statement on motion for new trial settled and allowed, and filed. April 5, motion for new trial denied. April 6, notice of denial of motion for new trial served. April 9, notice of denial of motion for new trial filed.

No appeal having been taken by plaintiff from the judgment or order denying new trial, said judgment and order are now final in favor of defendants, and case closed.

Samuel Soulé et al. vs. Benjamin Holliday, Jr. In Superior Court, Department No. 4, No. 2631.

W. H. L. Barnes, Esq., attorney for defendant.

Action to recover \$395 87 for dockage and toll.

On January 16, 1884, judgment was rendered in favor of plaintiffs for \$395 87, with interest thereon from April 11, 1874, and for costs amounting to \$11 50. This judgment remains unsatisfied.

The People of the State of California vs. Thomas Huson et al. In Supreme Court, No. 7207.

William M. Pierson, Esq., attorney for defendants.

Action to recover \$1,045 10 for deficiency in accounts of Huson as Wharfinger.

1878, May 6, complaint filed. August 15, answer filed. September 24, judgment for defendants. November 10, plaintiffs moved for a new trial, which was on May 5, 1880, denied, and on May 21, plaintiffs appealed to the Supreme Court. Pending the appeal, one of the defendants, E. J. Lewis, died in Tehama County. No administration has ever been taken out on his estate. September 28, action dismissed as to E. J. Lewis in Supreme Court. October 17, cause submitted in Supreme Court. 1889, January 25, cause reversed and remanded for a new trial. September 24, on new trial, judgment rendered for plaintiff for \$558 70 and \$10 costs, and findings waived. October 9, execution delivered to Sheriff. October 31, execution returned unsatisfied.

The People of the State of California vs. Robert G. Byxbee et al. In Superior Court, Department No. 8, No. 6251.

J. B. Lamar, Esq., attorney for defendants.

Action to recover \$460 78 for deficiency in accounts of West Evans as Wharfinger.

1882, February 10, complaint filed. Since the date of last report the following proceedings were had: 1888, August 20, default of A. F. Collins entered and judgment ordered for plaintiff for \$460 78, and interest from March 1, 1881, and costs, \$23 50. August 24, 1888, judgment entered. August 25, cost bill filed.

The People ex rel. The Board of State Harbor Commissioners vs. Thomas Quirk, J. C. Green, and Donald McLennan. In Superior Court, Department No. 3, No. 10491.

Messrs. W. H. L. Barnes and Ed. S. Salomon, attorneys for defendants.

Action brought to recover from Thomas F. Quirk \$14,149 81 for deficiency in his accounts as Wharfinger, and \$5,000 each from J. C. Green and Donald McLennan, as sureties on his official bond.

1883, August 22, complaint filed. This action was at issue as to defendants Green and McLennan. Since the issue was joined as to these defendants, both have died. No administration has yet been taken out upon the estate of J. C. Green. Special letters of administration have been issued to F. P. McLennan upon the estate of Donald McLennan. 1889, September 16, cause off calendar.

The People ex rel. The Board of State Harbor Commissioners vs. Josiah F. Fairfield, Charles J. Hendry, and W. S. Ray. In Superior Court, Department No. 2, No. 10938.

Messrs. Walter H. Levy and W. H. H. Hart, attorneys for defendants.

Action to recover \$12,672 25 from Josiah F. Fairfield for deficiencies

in his accounts as Wharfinger, and \$5,000 each from C. J. Hendry and W. S. Ray, as sureties on his official bond.

1883, October 19, complaint filed. Since the date of the last report this case has been tried and judgment rendered for plaintiff for \$1,911 95, and costs. 1889, May 24, motion for new trial denied. June 10, notice of appeal received. The case is now pending in the Supreme Court on appeal.

The People ex rel. The Board of State Harbor Commissioners vs. H. M. La Rue and A. S. Greenlaw. In Superior Court, Department No. 4, No. 10996.

Joseph F. Wendell, Esq., attorney for defendants.

Action to recover \$5,000 each from H. M. La Rue and A. S. Greenlaw, as sureties upon the official bond of William M. Haynie, late Wharfinger, for deficiencies in his accounts.

1883, October 26, complaint filed. Since the date of the last report the following proceedings were had: 1889, February 6, motion for new trial granted unless plaintiff remits from judgment \$336 30 for tolls and suffers judgment so modified for \$463 50. February 13, item for tolls remitted in open Court. February 15, motion for new trial denied. 1889, April 13, appeal to Supreme Court taken by defendants. The case is now pending in the Supreme Court.

The People of the State of California ex rel. William Irwin et al. vs. John C. Merrill, as executor of the last will of Martha B. Harris, deceased. In Superior Court, Department No. 4, No. 15708.

C. K. Bonestell, Esq., attorney for defendant.

Action to recover \$312 dockage due from bark "D. C. Murray," and penalties.

1885, August 10, complaint filed and summons issued. This case is in the same condition as at date of last report.

The People ex rel. Frank McCoppin et al. vs. Louisa Berryman, H. B. Berryman, K. Winter, and John Doe. In Superior Court, Department No. 2, No. 18290.

William M. Pierson, Esq., attorney for defendants.

Action to compel defendants to remove an unlawful obstruction alleged to have been placed by them on the inner half of East Street, near Jackson Street.

1886, August 17, complaint filed. October 16, demurrer received. December 3, demurrer overruled. December 30, answer received. Action now at issue and ready for trial on behalf of plaintiffs.

The People of the State of California ex rel. Frank McCoppin et al. vs. Robert Dunsmuir. In Superior Court, Department No. 2, No. 18978.

Messrs. Wilson & Wilson, attorneys for defendant.

Action to compel defendant to remove an unlawful obstruction alleged to have been placed by him on the inner half of East Street, between Pacific and Jackson Streets.

1886, October 30, complaint filed and summons issued. 1887, April 20, demurrer received. April 22, demurrer argued and submitted. July 1, demurrer overruled. September 23, answer received. This action is now at issue and ready for trial on behalf of plaintiffs.

W. H. Norton vs. W. C. Whitehead, administrator of the Estate of David Finley, deceased, A. C. Paulsell, John H. Wise, and William D. English, constituting the Board of State Harbor Commissioners. In Superior Court, Department No. 1, No. 19873.

Messrs. H. M. McGill and Whittemore & Sears, attorneys for plaintiff, and W. C. Burnett and W. H. H. Hart, attorneys for defendant W. C. Whitehead, administrator.

Action to recover judgment against the estate of David Finley, deceased, for money loaned deceased, and to restrain the Board from drawing its warrant in favor of the administrator for work done in the performance of a contract entered into between the Board and David Finley.

1887, March 15, complaint filed and temporary injunction issued and served upon the Board. April 28, demurrer overruled. May 13, amended complaint filed. May 20, answer of Board served and filed. May 30 and 31, action tried and submitted on briefs. November 28, judgment ordered in favor of the plaintiff. December 30, notice of decision and findings received. 1888, January 9, notice that Board intends to move for a new trial served and filed. May 31, statement on motion for a new trial settled and filed. July 27, motion for new trial denied. August 25, notice of appeal served. October 4, transcript on appeal filed in the Supreme Court. 1890, June 2, judgment and order affirmed by Supreme Court. The judgment in this case has been paid and satisfied and case closed.

Nancy Payne and Squire P. Dewey vs. William D. English, John H. Wise, and A. C. Paulsell, members of and constituting the Board of State Harbor Commissioners. In Superior Court, Department No. 6, No. 20614.

Messrs. Cope & Boyd, attorneys for plaintiffs.

Action to restrain the Board from erecting a wharf in front of plaintiff's property on the northerly line of Channel Street, between Third and Fourth Streets.

Since the date of the last report this case has been appealed to the Supreme Court, and the judgment there reversed and a new trial ordered. The case is now set for trial.

The People of the State of California ex rel. William D. English et al. vs. James Kerwin, Martin Kruse, et al. In Superior Court, Department No. 6, No. 21614.

L. Quint, Esq., attorney for defendants.

Action to compel defendants to remove an unlawful obstruction alleged to have been placed by them in Montgomery Street, near the southeast corner of Montgomery and Chestnut Streets, and also from seawall lot No. 7.

Since the date of the last report this case has been tried and a judgment rendered in favor of plaintiffs, that defendants remove building from seawall lot No. 7, with \$1 damages and costs, and in favor of defendants for that part of building on Montgomery Street. The defendants have appealed from this judgment and filed their transcript in the Supreme Court, where the case is now pending on appeal.

The People ex rel. W. D. English et al. vs. M. R. Roberts. In Superior Court, Department No. 4, No. 21668.

Messrs. Rosenbaum & Sheeline, attorneys for defendant.

Action to recover \$305 from defendant for dockage of the lighter "Contra Costa" and barge "Edison." The defendant claimed that the rule of the Board imposing these charges for dockage was in conflict with Sections 8 and 10 of Article I of the Federal Constitution.

Since the date of the last report the defendant has appealed this case to the Supreme Court, where it has been argued and submitted in department and ordered heard in bank. It now stands submitted in bank on briefs.

CONDITION OF ACTIONS COMMENCED SINCE DATE OF LAST REPORT.

Stephen Ford vs. The Board of Harbor Commissioners of the State of California. In the Supreme Court, No. 13374.

Application for writ of mandate to compel the Board to pay salary of Stephen Ford.

James G. Maguire, attorney for plaintiff.

This case involved the question of the power of the Board to remove a collector from office before the expiration of the time of his appointment, without cause affecting his official character or competency.

The case was argued and submitted, and the Court, on October 1, 1889, denied the writ and decided in favor of the Board. A petition for a rehearing was subsequently denied.

John Hackett vs. The State of California. In Superior Court, Department 6, No. 27567.

Action by plaintiff under authority of special statute of March 15, 1889, authorizing him as assignee of W. D. English et al., to institute action against the State for damages for breach of contract by Harbor

Commissioners, with reference to furnishing materials for building of seawall.

1888, November 25, summons and complaint served. December 9, demurrer to complaint filed. December 19, received notice of substitution of J. D. Sullivan as plaintiff's attorney. 1890, May 1, Dennis Spencer substituted as defendant's attorney. August 12, demurrer to complaint argued and submitted on briefs.

The undersigned has been duly substituted as the attorney for the Board in all cases to which it is a party.

Respectfully submitted.

DENNIS SPENCER,
Attorney for Board of State Harbor Commissioners.



MAP

Showing the lines of the

HARBOR EMBANKMENT AND SEA-WALL

ALSO THE

PIER-HEAD LINES OF THE HARBOR OF SAN DIEGO

*As established by the Board of State Harbor Commissioners
for the Bay of San Diego, the Governor of the State
of California, the Mayor of the City of San Diego,
and the President of the Board of Trustees of
National City, March 17th 1890.*

Scale 3 inches = 1 mile.

EXPLANATION

Steam Railroads shown thus
" Motor Roads "
Horse Car Lines "
Cable "
Sea Wall " in Red
Pier Head " Blue.

*We certify that this map accurately shows the
lines of the Harbor Embankment and Sea Wall,
also the Pier-Head lines of the Harbor of
San Diego, adopted by us on the seventeenth
day of March, 1890, pursuant to and by
authority of Sections 2587 and 2588 of the
Political Code of the State of California.*

V. M. Maternan

Governor of the State of
California.

Douglas Gunn

Mayor of the City of
San Diego.

E. S. Johnston

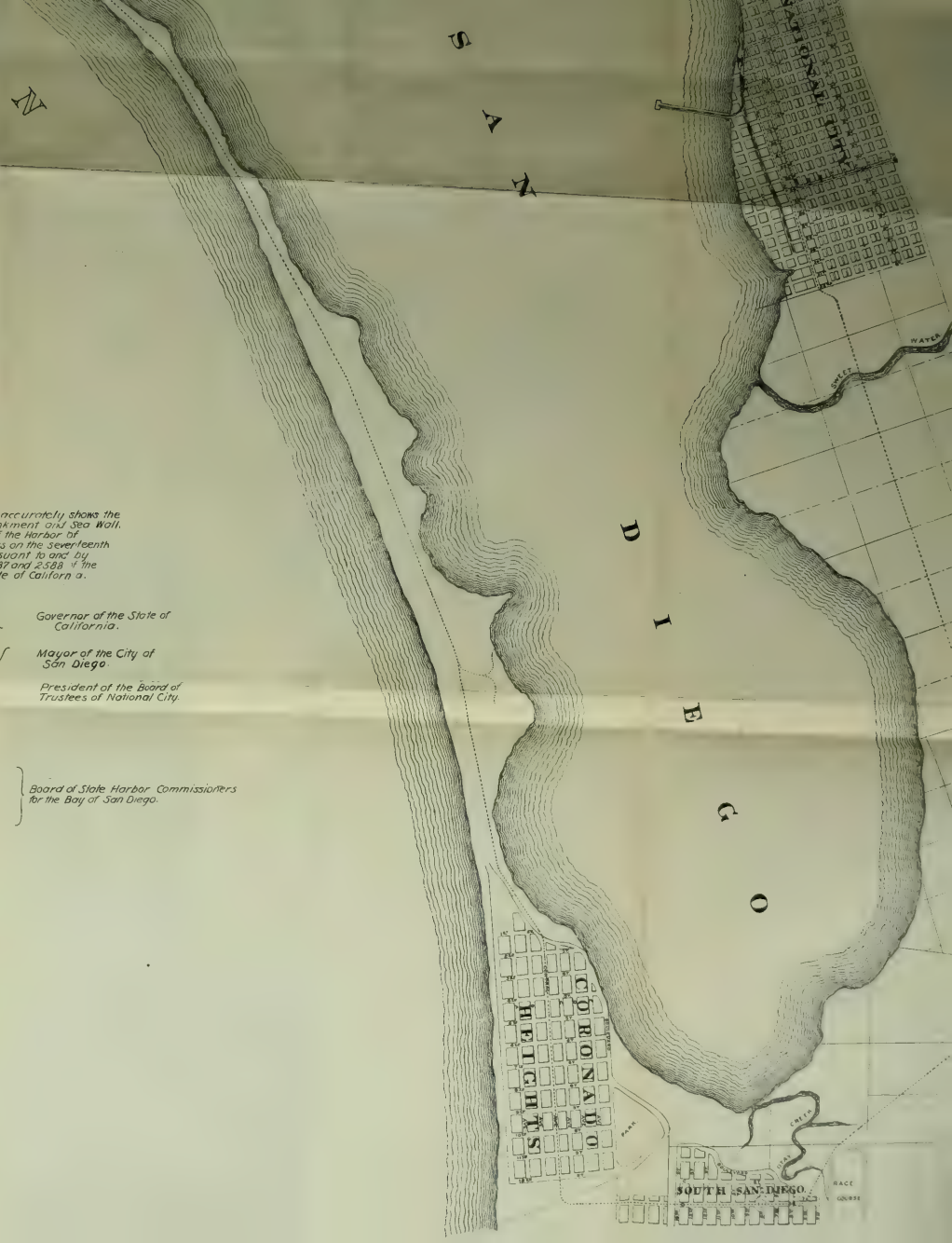
President of the Board of
Trustees of National City.

Elank Alberti

W. W. Stewart

J. B. Burt

Board of State Harbor Commissioners
for the Bay of San Diego.



CORONADO
HEIGHTS

SOUTH SAN DIEGO



BIENNIAL REPORT

OF THE

BOARD OF STATE HARBOR COMMISSIONERS

FOR THE

BAY OF SAN DIEGO.

OCTOBER 1, 1890.



SACRAMENTO:

STATE OFFICE, : : : : : J. D. YOUNG, SUPT. STATE PRINTING.
1890.

REPORT.

To Hon. R. W. WATERMAN, Governor of the State of California:

Pursuant to the provisions of Section 2592 of the Political Code, the Board of State Harbor Commissioners for the Bay of San Diego submits this report of its transactions from the eighteenth day of March, 1889, to the first day of October, 1890.

Upon the organization of the Board, it was found that no funds had been provided for carrying on the waterfront improvements and other work directed in the Act creating the Board, nor for the payment of the salaries of the Commissioners or their appointed officers.

The only income received by the Board has been derived from occupants of lands of the State under control of the Board. This income has been small—not enough to pay office rent and incidental expenses—and the members of the Board have been compelled to draw upon their private funds and credit in order to carry out the more urgent provisions of the Act.

Following is a full report of all moneys received and disbursed:

RECEIPTS (FROM RENTS).

1889—September.....	\$40 50
October.....	67 50
November.....	60 00
December.....	50 50
1890—January.....	40 50
February.....	37 50
March.....	41 50
April.....	40 50
May.....	36 00
June.....	42 50
July.....	38 00
August.....	27 50
September.....	40 00
Amounts advanced by the Board.....	163 15
Total	\$725 65

DISBURSEMENTS.

1889—May 24—California Printing Company, stationery.....	\$9 50
Aug. 19—Wells, Fargo & Co., expressage.....	90
Sept. 9—Payot, Upham & Co., seal.....	7 50
Oct. 15—M. G. Wheeler, Chief Engineer, services.....	40 00
Oct. 22—H. G. Williams, signs.....	3 00
Oct. 31—Nicholas Ulrich, map.....	2 00
Nov. 6—Chadbourne Furniture Company, office furniture.....	67 50
Nov. 9—H. G. Williams, sign.....	2 00
Nov. 8—Matthews & Co., office furniture.....	6 00
Nov. 22—San Diego "Union" Company, advertising.....	5 00
Nov. 22—San Diego "Sun" Company, advertising.....	8 00
Nov. 23—H. B. McAuliff, signs.....	4 50
Dec. 1—Williams, Hannahs & Co., office fittings.....	1 00
Dec. 4—J. C. Sprigg, Jr., rent of offices.....	35 00
Dec. 5—G. W. Marston, office fittings.....	12 80
Dec. 5—F. N. Hamilton, office fittings.....	1 50
1890—Jan. 8—J. C. Sprigg, Jr., rent of offices.....	25 00
Jan. 8—M. G. Wheeler, Chief Engineer, services.....	28 30
Jan. 9—John C. Daly, stationery.....	1 50
Jan. 9—Gray & Co., office furniture.....	7 50

1890—Feb. 5—Pauline Kingston, rent of offices	\$25 00
Feb. 26—John C. Daly, stationery	1 35
Feb. 6—John C. Monteith, stationery	3 00
Feb. 8—M. G. Wheeler, Chief Engineer, services	100 00
Feb. 18—Wells, Fargo & Co., expressage	60
Mar. 5—Wells, Fargo & Co., expressage	90
Mar. 12—Pauline Kingston, rent of offices	25 00
Mar. 15—M. G. Wheeler, Chief Engineer, services	75 00
Mar. 25—E. Reinberg, clerical work	5 00
Mar. 25—Secretary of State, certified copy of Act	16 55
Mar. 26—Cyclone Auction Company, office furniture	3 00
April 9—Pauline Kingston, rent of offices	25 00
April 17—Louis Dampf, framing maps	5 25
May 1—Dodge & Burbeck, stationery	2 15
May 16—Louis Dampf, mounting maps	1 75
May 20—Pauline Kingston, rent of offices	25 00
July 2—Pauline Kingston, rent of offices	50 00
July 16—G. B. Hensley, map	1 00
July 16—Gould, Hutton & Co., stationery	13 50
July 16—Wells, Fargo & Co., expressage	30
Aug. 25—Pauline Kingston, rent of offices	25 00
Sept. 2—Dodge & Burbeck, stationery	85
Sept. 5—M. A. Wertheimer & Co., stationery	1 70
Sept. 6—Pauline Kingston, rent of offices	25 00
Sept. 13—Wells, Fargo & Co., expressage	25
Sept. 30—Pauline Kingston, rent of offices	25 00
Total	\$725 65

ORGANIZATION.

Upon the organization of the Board, Clark Alberti, having been appointed for the four-year term, was made President, and J. H. Barbour appointed Acting Secretary. Mr. Barbour has continued to perform the duties of that position up to the present time, there being no funds at the disposal of the Board for the payment of the salary of a Secretary.

On May 25, 1889, Harry L. Titus was appointed Attorney.

On June 26, 1889, M. G. Wheeler was appointed Chief Engineer.

On the same date it was ordered that the Board hold regular sessions every Tuesday.

On July 3, 1889, Nestor A. Young was appointed Chief Wharfinger. His salary was fixed at \$150 per month, and official bond at \$10,000.

SEAL.

On August 27, 1889, the Board adopted a seal, having a central design representing the bay of San Diego with shipping in the foreground, with Point Loma and the entrance to the harbor in the distance, and a surrounding circle containing the words, "Board of State Harbor Commissioners. Bay of San Diego."

MAPS.

On August 27, 1889, the Board officially adopted a set of maps, prepared by the Chief Engineer, showing the waterfront (shore) line of the city of San Diego, from the foot of Ivy Street to the foot of Twenty-second Street.

SEAWALL.

According to Section 2588 of the Political Code, the Board of State Harbor Commissioners for the Bay of San Diego were directed, within one year from the passage of the Act, to employ two consulting civil

engineers to act with the Engineer of the Board in locating a line for a harbor embankment or seawall.

In January, 1890, at the request of this Board, Col. George H. Mendell and Lieut.-Col. W. H. H. Benyaurd, Corps of Engineers, U. S. A., San Francisco, consented to act with the Chief Engineer of the Board in making a survey, and selecting and locating a line for a harbor embankment and seawall. On March 3, 1890, their report was submitted to the Board.

On March 17, 1890, a special meeting of the Board was held for the purpose of considering the report of the engineers. In addition to the three Commissioners, there were present, Governor R. W. Waterman, Douglas Gunn, Mayor of the city of San Diego, and S. S. Johnston, President of the Board of Trustees of National City.

After a careful examination and consideration of the report it was adopted by a unanimous vote, and a copy of the map accompanying and forming a part of the report, showing the location of the seawall and pier-head lines, was ordered filed in the office of the Auditor and Recorder of San Diego County.

A copy of the map is hereto annexed. The red lines thereon indicate the seawall line so far as established; the blue lines show the pier-head line, beyond which piers or wharves shall not be extended into the channel.

The seawall line is laid at an average distance of two hundred feet from shore. The pier-head line follows as nearly as possible the line of twenty-four feet depth of water at low tide, which is the average depth maintained over the bar.

DESCRIPTION OF LINES.

Seawall Line, San Diego.—Starting from a point on the prolongation of the southerly side of Thorn Street, and three hundred feet westward from the southwest corner of California Street; thence in a straight line parallel to California Street to a point on the prolongation of south side of Palm Street; thence to a point on the prolongation of south side of Hawthorn Street, and four hundred feet west of California Street; thence parallel to Atlantic Street to a point on the prolongation of north side of Cedar Street, and two hundred feet from Atlantic Street; thence continuing parallel to Atlantic Street to a point on the prolongation of north side of H Street; thence in a curve of three hundred feet radius, with center at northeast corner of H and Atlantic Streets to the prolongation of east side of Atlantic Street; thence parallel to H Street to a point on the prolongation of west side of Arctic Street; thence to a point on westerly side of Columbia Street prolonged, four hundred and ten feet from southwest corner of Columbia and H Streets; thence parallel to the westerly side of the right of way of the California Southern Railway Company and two hundred feet from the same, to the prolongation of the northerly side of South Twentieth Street; thence to the prolongation of northwesterly side of South Twenty-first Street and one thousand and twenty feet from northeasterly corner of South Twenty-first Street and Pierce Avenue; thence parallel to Pierce Avenue to a point of prolongation of the southerly line of South Twenty-fourth Street; thence to a point on the prolongation of northwesterly side of South Twenty-seventh Street, eight hundred and ten feet from easterly side of Pierce Avenue; thence

to prolongation of southerly side of South Twenty-eighth Street, five hundred and fifty feet from the southeast corner of Pierce Avenue and South Twenty-eighth Street; thence to a point on prolongation of easterly side of Twenty-eighth Street, four hundred and forty feet from the southeast corner of Twenty-eighth Street and Colton Avenue; thence to a point on the prolongation of south side of South Thirty-third Street, five hundred and fifty feet from the west side of Avenue M; thence to a point on a prolongation of a line midway between Thor and Una Streets and distant four hundred and fifty feet from Pierce Avenue; thence parallel to Pierce Avenue to the prolongation of the boundary line between San Diego and National City.

Seawall Line, Coronado.—Starting from a point on the prolongation of Prospect Street, at a distance of one thousand and thirty feet from the northerly side of Second Street; thence to a point on the prolongation of the easterly side of Orange Avenue and four hundred and fifty feet from the northerly side of First Street; thence to a point on prolongation of westerly side of K Street, two hundred and fifty feet from northerly side of First Street.

NOTE.—The above described lines are united thus: Where the angle of intersection does not exceed 12 degrees, by a 2-degree curve; from 12 degrees to 24 degrees, by a 4-degree curve; and from 24 degrees to 40 degrees, by a 6-degree curve.

Pier-head Line, San Diego.—Beginning at a point on the prolongation of northern line of Ivy Street six thousand eight hundred and fifty feet from the western line of California Street; thence to a point on the prolongation of the south line of C Street three thousand seven hundred and forty feet from the west line of Atlantic Street; thence to a point on the prolongation of the west line of Atlantic Street one thousand and seventy feet from the south line of H Street; thence to a point on the prolongation of east line of Fifth Street four thousand one hundred and eighty feet from the south line of H Street; thence to a point on the prolongation of the northwestern line of South Twenty-first Street, two thousand and ninety feet from the northeastern line of Pierce Avenue; thence to a point on the prolongation of the southeastern line of South Twenty-eighth Street, one thousand three hundred and ninety feet from the northeastern line of Pierce Avenue; thence to a point on the prolongation of the northwestern line of Rigel Street, two thousand four hundred feet from the northeastern line of Oliver Avenue; thence to a point on the prolongation of division line between San Diego and National City, three thousand three hundred and fifty feet from its intersection with the prolongation of northeastern line of Oliver Avenue.

Pier-head Line, Coronado.—Beginning at a point on the prolongation of the southeastern line of Prospect Street, one thousand one hundred and seventy-five feet from the northeastern line of Second Street; thence to a point on the prolongation of the southeastern line of Orange Avenue, six hundred and fifty feet from the northeastern line of First Street; thence to a point on the prolongation of the northwestern line of K Street, one thousand three hundred feet from the northeastern line of First Street.

The lines, as above described, and as shown on the accompanying map, are identical with those adopted by the Board of United States Engineer Officers appointed to establish the harbor lines of San Diego Harbor and adjacent waters.

NECESSITY FOR SEAWALL.

Two years ago the growing need of better harbor facilities resulted in the selection, by the Chamber of Commerce, the Real Estate Exchange, and the City Council, of a Harbor Committee of thirteen to consider the situation. Propositions had been made to the municipal government by private individuals and corporations, at various times, for the construction of a bulkhead along the city front, but the committee, after carefully considering the matter, did not deem it advisable to recommend that a franchise be granted to any person, company, or corporation which would give them control of any considerable portion of the waterfront; but that, in view of the importance and value of the harbor and waterfront, and its constantly extending commerce, the exclusive control should always remain in the State. Accordingly, a bill similar to that governing the harbor of San Francisco was prepared, introduced, and became a law at the twenty-eighth session of the California Legislature. With a few amendments, made necessary by the haste used in its original preparation, the Act will afford comprehensive provisions for the control, care, and improvement of the harbor.

CONSTRUCTION OF SEAWALL.

Very favorable natural conditions exist for the substantial and economical construction of a seawall and thoroughfare of the kind contemplated. The bottom of the bay along the course of the located line is hard and comparatively level, the average rise and fall of the tide is but five feet, and there is no injury from rough seas to be guarded against. The plans under consideration by the Board contemplate a wall of stone twelve feet in height, twenty-four feet in width at the base, and six feet in width at the top; the outer face, to the thickness of six feet, being carefully laid with large rocks of not less than five hundred pounds weight each, and with a one half to one slope; the inner side to be composed of smaller rock, and having a one to one slope, the space between the wall and the shore to be solidly filled with earth and a paved thoroughfare created, which would supply valuable and much needed facilities for the business of the harbor. Reliable estimates, made under the direction of the Board, place the cost of the seawall and thoroughfare complete at sixty-five thousand dollars (\$65,000) per section of one thousand feet.

In designating the sections, the foot of H Street has been selected as the initial point, that being the natural center of the city's maritime business. The sections extending northward are lettered in regular order, and those to the south are numbered. This affords a brief and distinctive system of nomenclature, susceptible of all probable expansion without requiring modification.

WHARVES.

With one exception, the wharves in use are in bad condition; most of them are quite old and cannot long survive the attacks of the teredo. They are all owned and operated by private individuals and corporations, under franchises granted by the municipal authorities before the State assumed control of the harbor. Most of these franchises were granted or renewed during the period of 1886 to 1889, usually for twenty

years each. No system has been observed in the construction of these wharves; they ramble in all directions, and several of them extend beyond the pier-head line, causing an unsightly and dangerous condition. With the construction of the seawall and thoroughfares well under way, it would be possible for the Board to adopt a uniform system of piers, new ones to be built, from time to time, as they are needed.

GENERAL CONDITION.

Since their appointment, March 18, 1889, the members of the Board have exercised a constant supervision over the harbor. A full and complete map of the entire waterfront of the harbor of San Diego has been approved and adopted, and a certified copy filed in the office of the Auditor and Recorder of San Diego County.

Through the efforts of the Board an improvement has been made in the method of disposing of the city's garbage. The dumping of oil cans and other injurious articles in the vicinity of the channel and the bar has been stopped, and suitable points outside the harbor have been designated for the depositing of all refuse.

The general condition of the harbor, with the exception noted in connection with the wharves, is good.

The Board takes occasion to acknowledge its obligations to Col. G. A. Mendell and Lieut.-Col. W. H. H. Benyaud, Corps of Engineers, U. S. A., for their valuable and timely services in connection with the establishment of the seawall line, and suggests that it be empowered to make proper compensation to them.

RECOMMENDATION.

That the sum of one hundred and ninety-five thousand dollars (\$195,000) be appropriated for the construction of seawall and thoroughfare, and piers, at points on the city front where they are most urgently needed.

Respectfully submitted.

CLARK ALBERTI,
W. W. STEWART,
J. H. BARBOUR,

Board of State Harbor Commissioners for the Bay of San Diego.

OCTOBER 1, 1890.

REPORT OF HARRY L. TITUS, ATTORNEY.

To the honorable Board of State Harbor Commissioners for the Bay of San Diego:

GENTLEMEN: I respectfully submit the following report of the condition of the cases in the Superior Court of the County of San Diego in which your Board is or was interested, to wit:

The People, etc., vs. John Doe. No. 4042, Department Three.

This action was brought by plaintiffs for possession of property known as "D-Street Bath House."

Complaint filed December 10, 1889. Summons served December 10, 1889. Demurrer to complaint filed January 4, 1890. On February 1, 1890, the defendant admitted authority of the Board over the property, and the action was thereupon dismissed.

The People, etc., vs. T. J. Higgins. Two cases: No. 4474, Department Two; No. 4475, Department One.

These actions involve the alleged conveyances of tide lands by the city of San Diego.

Complaint filed April 11, 1890. Demurrer to complaint filed May 21, 1890. On May 21, 1890, stipulations were entered into whereby it was agreed that they should be determined at the same time as the cases of A. Klauber et al. vs. Board et al. (see below).

A. Klauber et al. vs. Board of Harbor Commissioners et al. Two cases: No. 4563, Department Three; No. 4564, Department One.

These actions are based on alleged conveyances of certain tide lands by the State.

Complaint filed April 19, 1890. Demurrer to complaint filed May 7, 1890. Court to hear arguments therein in October.

People, etc. vs. City of San Diego. No. 4973, Department Two.

This action was brought to compel the City of San Diego to remove the garbage wharf from the foot of H Street.

Complaint filed June 30, 1890. Summons served June 30, 1890. Demurrer to complaint filed July 11, 1890. Demurrer overruled by Court September 5, 1890. Answer filed October 3, 1890.

HARRY L. TITUS,
Attorney for the Board of State Harbor Commissioners for the Bay of San Diego.

OCTOBER 1, 1890.

BIENNIAL REPORT

OF THE

COMMISSIONERS TO MANAGE YOSEMITE VALLEY

AND THE

MARIPOSA BIG TREE GROVE,

FOR THE YEARS 1889-90.



SACRAMENTO:

STATE OFFICE, : : : : : J. D. YOUNG, SUPT. STATE PRINTING.

1890.

COMMISSIONERS

TO MANAGE THE

YOSEMITE VALLEY AND THE MARIPOSA BIG TREE GROVE.

HON. R. W. WATERMAN, GOVERNOR OF THE STATE OF CALIFORNIA,
Ex Officio President.

THOMAS P. MADDEN,
Vice-President.

JOHN P. IRISH.....Secretary and Treasurer.

E. W. CHAPMAN, JOS. G. EASTLAND,
T. P. MADDEN, JOHN P. IRISH,
Executive Committee.

COMMISSIONERS.

T. P. MADDEN, San Francisco.....	Term expires April 19, 1894.
JOHN H. O'BRIEN, Stockton ..	Term expires April 19, 1894.
F. M. PIXLEY, San Francisco.....	Term expires April 19, 1894.
JOHN P. IRISH, Oakland.....	Term expires April 19, 1894.
I. W. TABER, San Francisco	Term expires April 19, 1892.
E. W. CHAPMAN, Madera.....	Term expires April 19, 1892.
JOSEPH G. EASTLAND, San Francisco.....	Term expires April 19, 1892.
M. H. HECHT, San Francisco	Term expires April 19, 1892.

REPORT OF COMMISSIONERS TO MANAGE THE YOSEMITE VALLEY AND THE MARIPOSA BIG TREE GROVE.

To the Governor of California:

SIR: As required by law, the Commissioners to Manage the Yosemite Valley and the Mariposa Big Tree Grove submit to you the following as their biennial report:

The Board met as the law requires, in the valley on June 5, 1889; members present, Governor Waterman, E. W. Chapman, G. G. Goucher, T. P. Madden, Ben. C. Truman, Frank M. Pixley, John P. Irish; absent, I. W. Taber, John H. O'Brien. The annual organization of the Board was effected by electing T. P. Madden, Vice-President; Ben. C. Truman, Secretary and Treasurer; and F. M. Pixley, E. W. Chapman, and John P. Irish, as Executive Committee with the President, Vice-President, and Secretary as members ex officio of said committee, and Galen Clark as Guardian of the Valley.

At this meeting, among other important business transacted, was the appointment of a committee to report upon the removal of all fences in the valley that could be abated without violating the terms of existing leases, it being the policy of the Board to permit the least possible inclosure by fence consistent with the necessities arising in the use of the valley by the public, and to prohibit entirely the enlargement of stock within the grant. The recommendations of this committee were adopted and ordered carried out by the Guardian.

The Board also decided to ask the Interior Department and Congress to reserve the entire watershed of the valley, to the end that the streams which form the waterfalls that flow over its walls might not be diverted for commercial purposes or their volume depleted by deforesting.

On July 1, 1889, Secretary and Treasurer Truman resigned, and the Vice-President appointed F. M. Pixley to fill the vacancy. Mr. Pixley resigned as Chairman of the Executive Committee, and Mr. Irish was elected to that vacancy.

Upon Major Truman's resignation from the Commission, Mr. M. H. Hecht was appointed to the vacancy and qualified.

During the season ensuing upon the annual meeting, the Guardian, in addition to the merely preservative work necessary for the maintenance of the trails in safe condition and the roadway repairs—two items of great cost, which increases with the extension of the road and trail system required to give access to the spectacular parts of the valley—put needed improvements upon the Snow Trail, restored Mirror Lake, built new roadway to and along the borders of the same, and stand and turning circle for vehicles; put necessary repairs upon the Stoneman House chimneys, repairs upon the roof of the same, and equipped it with fire hose.

Too much importance cannot be attached to the restoration of Mirror Lake, one of the most interesting natural objects on the floor of the valley. This lake is a basin in Tenaya Creek, and the torrential character of the stream in the season of rain or melting snows had so shoaled

the basin, and the shoaling had been so promotive of the growth of aquatic plants and shrubs as to efface the mirror and lose an effect which had charmed all visitors and been the talk of the traveling world. After a thorough renovation of the basin, without disturbing the tree growths on its borders, a permanent dam was sprung across its outlet so skillfully as to intrude no evidence of art among the works of Nature, with the effect of re-creating and restoring the mirror in which the marvels of the scenery around and above are duplicated, and the beauties of sunrise and sunset and of the mellow moon are faithfully reflected.

The Yosemite Valley is the cradle of mountain storms. In the winter the tempests rage, compressed in that profound fissure, and in their struggles wreak themselves upon trees, and rocks, and trails, and buildings, sparing neither the works of Nature nor of man. Frame structures are found to need constant attention and repairs, and after the snows and avalanches of winter, returning spring finds trails and roads often almost obliterated and requiring reconstruction. During 1889 the Stoneman House needed and received extensive reparations; and the snow of the winter of 1890, which fell to an average depth of twenty-five feet in the valley, with accompanying gales, strained it and other structures, and made serious breaches, some of which still await costly and comprehensive attention.

The travel to the valley in the season of 1889 was good. An increased number of people from other States and countries visited the world's only Yosemite, and with few exceptions were pleased and enchanted with the majestic marvels which are grouped there with no rivals on the planet.

During the season the Big Tree Grove was threatened with disaster. That most despicable of crimes, forest arson, the result of carelessness on the part of campers, or design on the part of sheepherders, turned the surrounding forest, outside the jurisdiction of this Commission, into a flood of fire. The conflagration at times almost surrounded the Great Sequoia Grove, and invaded it at many points. To defend and save it, and, in the face of danger that lasted for weeks, take precautions against future calamities, cost nearly the whole of the annual appropriation for the grove. At the end of the long fight some of the most valued features and groups in the grove had been made safer than before, but the invasion of fire, which penetrated far within the grant before its fury could be quenched and the attack turned, marred and left marks which storm and time only can obliterate. This disaster pointed to the need of a resurvey of the grove, that the grant line might be recovered and restored, and re-marked with permanent monuments, cairns, and witnesses, in order that the Commission may on each side of the boundary clear out the underbrush and small growth of resinous trees, collect and burn the inflammable stuff, and defend the grove against fire from without by surrounding it with a border over which a conflagration cannot so readily pass.

The annual meeting of the Commissioners for 1890 was held in the valley, as required, on June 4th. Present, T. P. Madden, Vice-President, in the chair, and Commissioners Chapman, Hecht, O'Brien, Pixley, Taber, and Irish; absent, the Governor and Commissioner Eastland. The Board organized for the year by the election of Mr. Madden, Vice-President; Mr. Irish, Secretary and Treasurer; Messrs. Chapman, Hecht, and Irish, Executive Committee, with Mr. Madden member ex officio,

and Mr. Galen Clark, Guardian. Mr. Hecht resigned subsequently from the committee, and Mr. Joseph G. Eastland was appointed to the vacancy.

The working season following the meeting was devoted to the usual repairs on roads and trails, to keep them in safe order for use; to the removal of trees torn up by storms and avalanches, or destroyed by the overflow of the valley streams; to the construction of a telephone line to connect Glacier Point with the hotels and trail stables; to the piping of a supply of spring water to Barnard's Hotel, made necessary by the use of the Merced River for drainage; to the repair of bridges damaged by the floods, and to the construction of a shorter and better trail to Cloud's Rest from the floor of the Little Yosemite—a much needed betterment, which shortens and eases what has always been the most protracted and fatiguing trail trip in the valley, albeit endured with patience by hardy tourists for the sake of the marvels to which it leads. Hereafter, the journey will be found much less difficult and trying, and the new trail will make it possible to thousands who would have found its object inaccessible to them over the old trail.

The financial statement for the biennium will be found appended, and in the appendix the organic law of the grant, and such historical matter as for convenience of consultation seems proper to carry forward in the annual report.

The policy of this Commission is to preserve the floor of the valley as nearly as possible in its natural state; to avoid the grouping of buildings so as to form a village; to reduce the number of permanent residents of the valley to the lowest minimum required for the guarding of the public property in the season of isolation and winter; to expel from the valley, by refusing privileges, all tradesmen, trinket and curiosity peddlers, hawkers, solicitors, and similar nuisances who prey upon visitors by taking advantage of the souvenir idea, and whose presence and traffic offer no artistic advertisement of advantage to the valley; to restore, as rapidly as consistent with well ascertained principles of forestry, the park-like condition of the valley, which was noted as one of its charms when first seen by white men—in which condition its floor was unobstructed by underbrush or small trees, its streams were bordered, and the talus of its cliffs was garnished by flowering shrubs, and its walls were everywhere in view from all parts of its plane surface. In fine, Nature is to be nowhere marred, but everywhere assisted in preserving the simplicity, the freshness, and the fineness of this wonder of the world.

The request of the Commission that the Federal Government make a further reservation so as to protect the Yosemite watershed and save it from deforestation, and its streams from diversion, was promptly responded to by Representatives Vandever, of California, and Holman, of Indiana, in a bill collaborated by them, which makes the needful reservation, and creates, also, a new scenic reserve in the mountains, substantially the same as proposed by the late General John F. Miller, Senator from California. As Mr. Robert Underwood Johnson, sub-editor of the "Century Magazine," hastened to claim the credit of this legislation and to quote it as a rebuke to the Yosemite Commission, General Vandever, who introduced the bill, wrote to this Commission as follows:

HOUSE OF REPRESENTATIVES, September 9, 1890.

Hon. JOHN P. IRISH, *Secretary*:

MY DEAR SIR: The "Century Magazine" had nothing whatever to do with my introduction of the bill in Congress for the establishment of a National Yosemite Park. I can

assure you, if in the course of any discussion that may arise on the bill, it becomes necessary to defend the good name of the State of California or its Board of Yosemite Commissioners, no one will be more ready than myself to perform that duty. I am not at all apprehensive that the State or its honorable Board of Yosemite Commissioners will suffer in reputation from any attacks that have been made upon them, or that it will become necessary for myself or my colleagues in Congress to appear as their champions.

Yours sincerely,

WM. VANDEVER.

The Commission would do itself injustice and fail in its trusteeship to an express trust the administration of which concerns the honor and fame of the Commonwealth of California, did it fail to note here, officially, the shameful and shameless attacks made upon the management of the valley, and the high-handed attempts to divert attention and travel by the unworthy and unsupported statement that, even "elsewhere" than in California "there are many Yosemitees, as much alike as trees of the same species."

In noting these attacks we propose no defense, for none is necessary. The State's defense is in the bad character, or despicable motive or rank antecedents of her accusers. It is, also, in the sentiments of approbation and appreciation of tens of thousands of discriminating and right minded tourists attracted from all parts of the earth by the fame of the one and only Yosemite Valley.

What reference is here made by the Commission is simply the record of facts which subject the defamers of the State to a humiliating exposure by convicting them of the final and ultimate immorality of discussion, which is the guilt of affirmative and negative falsehood, the telling of untruth and the suppression of the truth. The public has been treated to magazine articles in the "Century," approved by the sub-editor of that publication, upon the "destructive tendencies at work in the Yosemite Valley." The truth or falsehood of these articles depends upon the original condition of the valley, when first seen by white men, as it came from the hand of Nature and the Indians, who had long been its guardians. If it were beautiful then as to its cliffs, and the carpet of verdure and grouping of forests on its floor, what change has come upon either or any of its features to mar or destroy them? If one of its primordial charms were in its trees, have they been lessened by reducing the number which brighten it with their forms and foliage? If its virgin beauty were enhanced by the garlands given by flowering shrubs, have these altogether disappeared, so that no blossom lights it with a reflection of the brief sunshine of the short day that reaches the floor over its inclosing walls, lifted four thousand feet above?

The entire case made by the "Century Magazine" stands disproved, and its urgent authors and abettors disgraced, if it be proved that the valley when discovered was park-like in its lack of underbrush and small tree growth, with its floor clear under the tall trees, carefully preserved by the expert foresting of the Indians. When this is proved, therein is proof of the further fact that there are to-day growing in the valley one hundred trees, at least, where one grew upon its acquisition by the whites and the expulsion of the Indians. These two facts proved give the flat negative to the "Century's" statement that "all things accessible and destructible in the Yosemite are being rapidly destroyed. Hogs and horses, ax and plow, have long been and still are busy in the Yosemite gardens and groves."

After this libel appeared, the Secretary of this Commission, seeking the best information obtainable as to the condition of the valley when discovered in regard to its tree growths and underbrush, wrote to its discoverer—who also named it—Dr. Bunnell, formerly of this State, and now a respected citizen of Minnesota. The same issue of the "Century" which contained the above libel published a short and evidently mutilated article by Dr. Bunnell. In answer to the Secretary's letter that gentleman sent the following:

Hon. JOHN P. IRISH:

HOMER, MINNESOTA, September 9, 1890.

DEAR SIR: Your favor of the third instant is received to-day. I had touched upon the subject of your inquiry in an article for the "Century," but the space was already secured for Muir's article, and only the short one seen by you could obtain publication.

I send you the portion not published by the "Century" as the best answer to your question.

Very truly,

L. H. BUNNELL.

The manuscript rejected by the "Century" is of such historic interest—aside from its value as proof of the despicable deception practiced upon the "Century" readers by its sub-editor, Robert Underwood Johnson—that we here offer it in full, with an introduction rewritten by Dr. Bunnell to make its narrative form complete. The reader will see at once why this interesting statement by the man who shared in the discovery of the valley, who gave it its name, and who named nearly all of its most prominent features, was suppressed by the "Century"—for it proved every word printed in that magazine depreciatory of the State's management, and the present as contrasted with the original condition of the valley, to be arrogantly and impudently false:

The Yosemite tribe, and other hostile mountain Indians of California, had made in 1850, frequent raids upon the camps and herds of the miners and immigrants of Mariposa County, and finally, when tribute was refused, murderous attacks were made upon the store of James D. Savage, at the Fresno, upon the store of Mr. Cassady, of the San Joaquin River, and upon a party of immigrants encamped at the site of what is now the city of Visalia. During these attacks twelve men were killed, several were wounded, and a large number of cattle, horses, and mules were stolen, and goods plundered.

These disturbances led to the organization of the Mariposa Battalion, and the discovery of the Yosemite by a small command under Major Savage, as recorded by the writer in his book, "Discovery of the Yosemite."

Upon reaching the valley, the unique character of the scenery impressed itself upon the minds of a few of us, and some, in awe, or perhaps in reverent admiration, began suggesting Biblical names for the wonderful valley we had discovered. With a full appreciation of the feelings inspired by the scenery, yet with a sense of poetic justice due to the memory of the Indians we were forcing to leave their mountain home, I suggested as a name, Yosemite, the name of the tribe as known to us, as *American*, and certainly the most appropriate. After some discussion, my name for the valley was accepted, and afterwards it was adopted by vote of the Mariposa Battalion.

Some time after this event, I found that the Indian occupants of the Yosemite Valley called it Ah-wah-ne, and themselves Ah-wah-ne-chee, meaning the dwellers in Ah-wah-ne. The modern Yosemitees were so called by other tribes because they were a lawless band, led by a robber chief, Ten-ie-ya, who was called a grizzly bear, the word Yosemite, as pronounced by the Ah-wah-ne-chee remnant of the band, signifying that monster of strength and ferocity.

The famous cliff, El Capitan, the Captain, is a Spanish interpretation of the Indian name, To-tock-ah-noo-lah, meaning the "Rock Chief." The Indians called the cliff "The Chief," not alone from its majestic appearance, but also from a perfect likeness of a man's head and face to be seen on its south facade. Prof. J. D. Whitney, formerly California's eminent geologist, declared El Capitan to be the largest rock in the world. It may be seen at times with remarkable distinctness from the valley of the San Joaquin at a distance of at least sixty miles.

With head proud and high,
White brow to the sky;
His features the thunderbolts dare.

There is a beautiful little fall in a recess on the southwestern face of El Capitan that makes a vertical descent of two thousand one hundred feet. The Indian name for the

stream is Lung-yo-to-co-ya, meaning the "pigeon basket or nest," and the locality is a favorite resort for those birds. Mr. Hutchings has named the fall "The Ribbon Fall," as an English name was desirable. The "Bridal Veil Fall" was so named by Mr. Warren Baer, of Baltimore, Maryland.

Fair Bridal Veil Fall,
The Queen over all,
In beauty and grace intertwined;
Even now from thy height,
Water rockets of light
Dart away and seem floating in wind.

The "rockets" result from the Po-ho-no, or "peculiar wind current," as Mr. Cunningham translated the Indian name for stream, fall, and the meadows above.

In summer time this wind comes up through the cañon daily in puffs of great power, throwing water in rocket-like jets up the valley, and even above the level of the fall. The return current at night from the snowy mountains reverses this action, and in the early morning the water is perpendicular in its flow.

A fanciful interpretation to the Indian name has been given by one writer as meaning Po-ho-no, "The Spirit of the Evil Wind." The five Indian murderers of Rose and Shurbon, who were shot near the place where the bodies of the white men were found in 1852, has tinged the locality with romance.

The Yosemite Valley proper is six and a half miles in length and from half a mile to a mile and a half in width. It is somewhat irregular in shape, and in going up or down new objects were constantly presenting themselves to our view, as there was no underbrush.

The *Azalea Occidentalis* and other rare and fragrant flowers and shrubs were found in great abundance among the rocks, or debris, and on the tables above, the curious crimson plant, *Sarcodes sanguinea*, springing from its bed of snow. There was a great variety of evergreen and deciduous trees, planted by Nature's landscape gardeners, and, as the undergrowth was kept down by annual fires while the ground was yet moist, to facilitate the search for game, the valley at the time of discovery presented the appearance of a well kept park.

A delightful temperature is maintained in summer by modified trade winds during the day, and at night the air is cooled by the sighing breezes from the mountains.

The upper air currents pass down through the three principal cañons which open at the head of the valley. The side walls are of grayish granite, which becomes in a clear sunlight a dazzling white. This intensity of reflection is toned to a great extent by a varying haze that permeates the upper air for most of the time. Sometimes the haze has the appearance of a light cloud of blue smoke. At other times it is enriched to a golden or a purple tinted light, that lends its radiance to a gossamer film to shield the glare of the reflection from the granite. The walls on each side are mostly perpendicular, and from the level of the valley to top of the cliffs are from two thousand six hundred and sixty feet to four thousand seven hundred and thirty-seven feet in height.

The measurements are mostly those of the Geological Survey made under direction of Professor Whitney. Passing on up the valley, on the north side, just above the "Rock Chief," we come to the "Three Brothers," three thousand eight hundred and fifty feet high. These remarkable peaks were so named by the writer from their number coinciding with the three brothers captured by us while hidden among the rocks of the peaks. Young Ten-ie-ya, a son of the chief, was subsequently killed while attempting to escape.

The Indians called the peaks Kom-po-pai-ses, meaning the Frog Mountains, because of their complete resemblance to the heads of those amatory reptiles. The attempts made to translate the Indian name into mountains playing "leap frog" are as absurd as they are amusing; for it does not admit of translation.

They hear the plaintive bull-frog to his mistress trilling sweet;
They see the green-robed sirens plunge down in waters deep—
But leap, these mountains may not: they watch with clouded brow,
Return of young Ten-ie-ya—heard not his death's pow-wow.

The next object above of supreme interest is, as far as known, the highest waterfall in the world affording so large a volume of water. The width of the stream at an ordinary stage is twenty feet, and its depth two feet. At the highest mark of flood, it is very much greater. This fall was known to the Yosemitees as Scho-looke, that is, "The Fall," as it was the fall *par excellence* of the entire region. Having named the valley, I was called upon for a name for its highest fall. Taking a hint from the Indian custom, I called it Yosemite Fall, for the valley. The vertical height of the lip of the fall is about two thousand six hundred and thirty-four feet, sixteen times greater than that of Niagara. The first descent is a sheer perpendicular leap of about one thousand six hundred feet; twice that of the Sving Foss of Norway; nearly twice that of the Kaietur of British Guiana, and only lacking thirty feet of being twice as high as the highest of the Southerland Waterfalls of New Zealand. The three falls of the Southerland make but one thousand nine hundred and four feet, seven hundred and thirty feet less than the Yosemite, and yet so respectable a publication as "Chamber's Journal" is quoted as saying that "the New Zealand fall is the highest on the globe." The upper fall of the Yosemite strikes upon a table from which cascades form of six hundred and twenty-six feet, and then a last fall of about four hundred feet to the talus of rock below. The cliff east of the high fall, at the turn of Indian Cañon, was known as Ham-mo, meaning the lost

arrow, as it marks the place of a pretended loss of an arrow that led to the death of Ten-ie-ya's son. The peak next to the fall has been known to some as Eagle Point, but this name is confusing, as Eagle Peak, four thousand feet high, from its situation to the west of the fall, commands one of the finest views on earth. Bishop J. P. Newman said that that view alone had paid him for crossing the continent. The cliff along the east side of Indian Cañon was known as Le-ham-ite, and designated the place of the arrow wood, as we might say, the oaks.

The locality forms the southwestern base of the Royal Arches, Washington Column, and North Dome. On the bare, seamed cliff of the cañon, hidden from view, was the secret trail of Ten-ie-ya. Its entrance into the valley was down through the top branches of a black oak tree, and in passing over the trail on the verge of the cliff, I was reminded of Byron's scene in the Jungfrau Mountains, where Manfred, alone on that cliff, describes his situation. But twelve men of our expedition, composed of thirty-six, could be induced to pass over the trail, some declaring that only a Blondin could walk over it. However, piloted by Ten-ie-ya, the few of us passed in safety, while those who had turned back came into camp long after nightfall.

To the east and to the north of the trail two streams descend from the North Dome. That of the cañon was known as Scho-tal-lo-wi, meaning the fall ravine, and that of the arches, Scho-co-yah.

The Royal Arch is one thousand two hundred feet high, and it is of one thousand two hundred feet span. A clear cut space of about seventy-five feet into the face of the cliff has fallen from the vast area of the arch, and yet, at a distance, it looks like a mere scratch on the wall. The Yosemite called the principal arch Scho-ko-ni, from its fancied resemblance to the arched shade and protector of an Indian cradle.

It was under one of the fallen rocks of the arch that I discovered the oldest squaw ever seen in America—an animated mummy, said to have been a relative of the noted Mission Kah-we-ah Indian, Gabriel.

At the angle of the valley, on the north side, the Washington Column lifts its rounded mass, marking the boundary of the valley and the Ten-ie-ya Cañon. North, and a little east of this, the North Dome appears. The North Dome is three thousand six hundred and sixty-eight feet above the valley. The dome was known as To-co-yah, meaning a round basket used in gathering acorns.

The first noticeable cliff above the Washington Column is Mount Watkins, about four thousand feet high, and in the early morning it is perfectly reflected in the beautiful Mirror Lake. This lake was so named by Mr. C. H. Spencer, of Utica, New York (one of my comrades); and, shaded as it is by the Half Dome on the southeast and by Cloud's Rest on the east, there may be seen reflected from its still water the most remarkable scenery and double sunrise in the world. The Indian name for the lake was Wai-ack, meaning the rock water, because of its nearness to the Half Dome, and the perfect reflection of the rocks of peaks adjacent.

The Half Dome, four thousand seven hundred and thirty-seven feet, was known as Tis-say-ack, meaning the cut or cleft rock, because the half of it had been cut off.

Cloud's Rest, six thousand feet high, was so named by a squad from C Company, who had passed up the middle branch, and were turned back by seeing the clouds gather on that peak for a snowstorm that followed that night, the second of our first entrance into the valley.

The Ten-ie-ya Cañon was known as Py-we-ack, meaning the stream of the glistening rocks, from the dazzling brightness of the glacial ground peaks at Lake Ten-ie-ya, its source.

The name of the chief of the Yosemite tribe, Ten-ie-ya, was given to the lake by the writer, to commemorate the final capture of his band at the foot of the lake. The capture occurred about a month after our second entrance in May, and the next morning, about June 6, 1851, I walked on the shore ice of the lake, formed during the night. The lake is about a mile in length, and its waters are poured over a cascade into the Ten-ie-ya Cañon. The old Mono Lake trail, which is still in use, leads south of Cloud's Rest, to the Little Yosemite, Nevada, and Glacier Falls, and thence to the plains, or branching into the Yosemite Valley.

The Little Yosemite is just above the Nevada Fall, and was first explored by a few of Captain Dill's company. It is a flat valley about four miles long, inclosed in high walls, which contract at the upper end into a gorge. There is a cascade on the south side estimated at about one thousand two hundred feet high. The Little Yosemite is an extension of the great valley below, and from it are to be seen some of the most magnificent views of the Sierras.

The Nevada Fall is, as Professor Whitney says, "in every respect one of the grandest waterfalls in the world. Whether we consider its vertical height, the purity and volume of river which forms it, or the stupendous scenery by which it is environed." Nevada Fall is over six hundred feet high, and the Vernal, about a mile below, is over three hundred, though neither has been accurately measured as far as known, owing to the blinding spray when the attempt to do so was made.

It was because of its nearness to the summit lakes, meadows, and peaks of the Nevada Ranges, and of its being in appearance an avalanche of snow, that I named that snowy waterfall, Nevada. A literal interpretation of the Indian name, Yo-wi-we, could not be tolerated, Yo-wi-we meaning the "Squirming or Worm Fall," from a twist given the water by a curving rock upon which the water strikes during its descent.

North and west of the Nevada Fall is a stupendous rock two thousand feet above its base, nearly perpendicular except on the north side. This rock has a peculiar shape, and

has been appropriately named by some one "The Cap of Liberty," from its resemblance to that one worn by our national goddess. The descent between the Nevada and the Vernal Falls is about three hundred feet, and in its rapid flow into the "Emerald Pool" it is broken into countless liquid diamonds. Poetry and prose have both been called to aid in description, but "no pen can offerings bring," and yet if there be an element of superstition in the beholder, or if he be largely imaginative, he may, with Dr. De Witt Talmage imagine "the spirits of the snowy waters dashed to death on rocks below, transformed into liquid diamonds, pearls, and amethysts;" and (again in the doctor's language) declare "that here are jewels enough to array all the earth in beauty."

The Vernal Fall I so named because of the cool, vernal spray in contrast at midday with summer heat, reminding me of an April shower, and because of the blue grass curiously growing among dark rocks and gay, dripping flowers, making it an eternal April to the ground. "The Indian name is Yan-o-pah, meaning a little cloud," because of the spray through which the old trail passed, and because of the circular rainbow, nowhere else seen in the mountains. Passing on down the rocky cañon of the Yan-o-pah, we soon come to its southern branch, the Too-loo-lo-we-ack. The name does not admit of translation, and I have therefore named it Glacier Cañon, and its fall, Glacier Fall.

Glacier Fall is probably six hundred feet high, and is visible from the Ten-ie-ya Cañon. Great liberties have been taken by eastern visitors and publishers in the translation of the Indian name. To the primitive Indian mind, all illustrations are drawn from nature, and at a low stage of water this stream furnishes to the Indian a perfect example in its method of pouring itself through the massive rocks of the cañon. "Illouette," given in the reports of the Geological Survey, and by the State authorities of California, is not Indian, and is, therefore, meaningless.

Emerging from the rocky trail, we again enter the valley proper at Glacier Point. Here the Yosemite is widest and the views are most charming, or at least they once were. The Commissioners have erected here, at Boling's Point and Spring, the hotel authorized by the State, and named it the Stoneman House, in honor of Governor Stoneman. The hotel occupies the grounds of Captain Boling's old racecourse and our exercising grounds. There was nothing in those days to mar the beauty of our surroundings, and, while waiting in the valley or exploring the high Sierras, the robust lover of nature had many sources of enjoyment. We never had a company or battalion drill, but unless we exercised our animals freely they would not continuously acknowledge our mastery over them.

There was then but little undergrowth in the park-like valley, and a half day's work in lopping off branches along the course enabled us to speed our horses uninterrupted through the groves. A visit to the Yosemite will not be complete without passing one night at least at the Glacier Point Hotel. Looking from the eastern porch, you see on your left the Half Dome and Grizzle Mountain. In front, the Nevada and Vernal Falls, Cap of Liberty, and entrance into Little Yosemite. In the distance, Ten-ie-ya's Peak, Mount Lyell, Mount Clark, and many other lofty peaks of the high Sierras; and on your right, the noble Starr King, at whose feet, reflecting his image, is its placid forest lake. By climbing the old time South Dome, now known as Sentinel Dome, four thousand one hundred and sixty feet high, other familiar objects appear with entirely new faces.

Descending the Glacier Point trail once more, accommodation may be found at the hotels guarded by the Sentinel Rock or obelisk. This shaft of granite rises one thousand feet from its base, and its apex is three thousand and forty-three feet from the level of the Merced. The hotels of the Sentinel are nearly opposite the Yosemite Falls, and they command most excellent views. It was near the site of Barnard's that our longest encampment was made, and it was in the shade of the big cedar tree inclosed in the Barnard Hotel, that most of the Indians' legendary lore was obtained from the old chief-tain, Ten-ie-ya. These traditions, or some of them, have been already published. Many are led into error by hearing of the Big Tree room, and suppose it to be of the genus *Sequoia*. There are no Big Trees proper in the Yosemite Valley; they grow only at an altitude of at least a thousand feet above, unless cultivated.

The Indian name, Lo-yah, for the Sentinel Rock, is of doubtful origin. If derived from the shape of the rock, it is probably Indian-Spanish for olla, a water pot, as it has the form of an Indian cemented water basket. If the name comes from the Spanish word Ho-yas, holes in rocks, the Sentinel designated the place of the acorn mortar mills; or, perhaps, the obelisk form was supposed to resemble the stone pestle for pulverizing the acorns used by the Indians as food. This seems most probable from the Cathedral Rocks and Spires being named Poo-se-na-chuck-ah, meaning mouse-proof rocks, or acorn storehouses.

Below the Sentinel, not far above the Spires, a curious rent is seen in the south wall of not more than four or five feet wide in the narrow part. This rent is known as the Fissure, and it is several hundred feet high. A short distance below it are the gracefully pinnaced rocks known as the Cathedral Rocks and Spires. The Spires are isolated shafts of granite that rise five hundred and seven hundred feet, respectively, above their bases, which form a part of the south inclosing wall of the valley. The Indians (always on a material plane) thought the rocks a safe place to store acorns, and hence their names of "Mouse-proof Rocks."

The Cathedral Rocks, next below, are a mass of sculptured granite, that resemble at a distance some gigantic architecture of medieval times. These rocks are two thousand six hundred and sixty feet high. The western continuations of these rocks are known as the Ko-su-kong and the Three Graces; they extend to Bridal Veil Falls. Nearly three miles below the valley, in the cañon, are two beautiful cascade falls of over seven hun-

dred feet each. I named these falls the Cascades on a first exploration, the name being suggested by their formation and twin-like appearance. Near the lower fall I found a group of the curious nutmeg pine, since named *Torreya Californica*.

The tree is a resinous evergreen, and bears a fruit closely resembling in appearance the nutmeg of commerce. Still farther below, I found a beautiful madrona tree whose red berries and annually shedding bark made it an object of considerable interest. A few years later, with George K. Peterson, one of General Fremont's engineers, we ran two lines of levels through the cañon. We found the distance to be about eight miles through the cañon proper, and the descent about one thousand five hundred feet. An electric motor line of railroad might be trestled up and graded out of the cañon on a suitable line, by the way of the valley of the Merced River or its South Fork. The channel of the river in the cañon is obstructed by bowlders of immense size, making a succession of waterfalls and rapids, from which might be conserved a power that would run cars from the Yosemite to the plains of the San Joaquin. The talus of rocks along the line would afford ballast for a road bed, from which no dust would rise, and there being little winter snow to obstruct the route, visitors could enter the valley at any season of the year.

There are many small falls in the valley that in any other country or locality would attract the notice of the world. At the Yosemite they are looked upon as *toy falls*, that disappear with the melting snow. If visitors enter the valley as early as the middle of May or early in June, the flow of the falls will certainly astonish them.

The beauty and grace of the whole aqueous display and the echoes resounding from cliffs and mountains are scenes and sounds surpassing any poet's dream. Could Lord Byron have seen the valley, he would doubtlessly have said: Yosemite,

"Thy vale of evergreen, thy hills of snow,
Proclaim thee Nature's favorite now."

LAFAYETTE H. BUNNELL.

After suppressing the testimony of authority as exact and credible as Dr. Bunnell, who saw the valley as one of the party of discovery and has visited it since; who has written about it the only comprehensive and readable book of narrative and description, and who finds now that views formerly fine and inspiring are obscured entirely by the dense tree and underbrush growth of the last forty years, the "Century" stands discredited and disgraced, so far as the immorality of its junior editor can harm its good name.

By way of further explanation, it is proper to say that the description of Indian foresting given by Dr. Bunnell applies to the Indian practice throughout the continent. Read again his statement of the park-like appearance of the valley and study its likeness to the following:

Governor Bradford's history of the Pilgrim settlement at Plymouth in 1620, and his description of the New England coast and interior, after being lost during the Revolutionary War, was recovered and is printed as "Young's Chronicles of the Pilgrime." It is one of the very earliest descriptions of the physical condition in which white men found this continent. Describing the landing on November 11, 1620, that day "when the philosophical fiction of a social compact was realized in practice," in the covenant signed by the Mayflower immigrants, Bradford says they "found the crust of the earth a spir's depth, excellent black earth, all wooded with pines, oaks, sassafras, juniper, birch, holly, vines, some ash, walnut, and the woods for the most part open and without underwood, fit to go or ride in." Again, describing the expedition of Miles Standish to Pokanoket he says: "There is much good timber, oak, walnut, fir, beech, and exceeding great chestnut trees, and though the country be wild and overgrown with woods, yet the trees stand not thick, but a man may well ride a horse amongst them." How the primeval forests came to be in this condition of freedom from underbrush is told by contemporary writers who on the ground noted the habits of the Indians in respect to the forest. Morton's "New English Canaan," published in 1632, from observations made in 1622-25, says: "The salvages are accustomed to set fire to the country in all places where they come and to burn it twice a year, viz.: at the spring and the fall of the leaf. The reason that moves them to do this so is because it would otherwise be so overgrown with under weeds that it would be all a coppice wood, and the people would not be able in anywise to pass through the country out of a beaten path. This custom of firing the country is the means to make it passable, and by that means the trees grow here and there as in our parks, and it makes the country very beautiful and commodious."

Wood's "New England Prospect," from the author's observations in New England in 1633, says:

"Whereas, it is generally conceived that the woods grow so thick that there is no more clear ground than is hewed out by the labor of men: it is nothing so; in many places divers acres being clear so that one may ride hunting in most places of the land. There is no

underwood, saving in swamps and low grounds, for it being the custom of the Indians to burn the woods in November, when the grass is withered and leaves dried, it consumes all the underwood and rubbish which otherwise would overgrow the country, making it impassable and spoil their much affected hunting. So that by this means, in these places where the Indians inhabit, there is scarce a bush or bramble or any cumbersome underwood to be seen."

In these days, when so few people live who have seen the primeval forest as it grew and was preserved by the Indians, this earliest and best testimony on the subject is full of interest. It supports the evidence furnished by Dr. Bunnell, which the "Century" dared not print, and aids in convicting the defamers who have feared to make known the original condition of the Yosemite forests, because it would prove them to have willfully borne false witness against the management.

The wisest man living, in the Indian lore, languages, and customs on this coast, is Joaquin Miller. In his paper read to the National Forestry Congress, in 1887, and since translated into all the languages of the European continent for the value of its information upon forestry, Mr. Miller gives this additional testimony as to the wise Indian forestry to which we owe the tree-clad areas which they preserved for us to destroy:

There are few forest fires in the Old World, because the poor pick up the fallen timber and the leaves are gathered to nourish the earth. But was this the case of old? I rode for a full day, from Babylon toward Jerusalem, without seeing so much as a grasshopper; not a bird, not even a blade of grass in a land that was once an Eden. We read that Alexander the Great planted every tree of Greece there in trying to restore that land, and mourned because the Greek ivy could not be made to grow on the tower of Babel.

Well, let me tell you right here that if this process of fires and floods—floods that always follow fires—is permitted to go on by the help of ten thousand iron-toothed mills—gang-plows in the valleys to help along the flood that has gathered force in the burned out higher land—why we will accomplish that same desolation just as certain as water runs. Only we will achieve by the aid of gang-plow and circular-saw, implements unknown of old, in two centuries what it took Babylon twenty to bring about.

May I beg, in conclusion, that you do not quite forget what that great and most thoughtful old man, Captain Eads, said about leaves: Leaves are the life of this nation. Every leaf is a little reservoir. Every leaf that is left to lie in its place through the season of floods helps to hold the fort as God purposes. I tell you a single little leaf is of more importance in the glory and perpetuation of this nation than is her stoutest soldier to-day. But surrender the leaves and grasses to the flames and what can poor denuded Mother Earth do but surrender to the floods and let ruin possess the land?

Yes, we must have fires; but fires in the season. Why, I would rather see a frost in midsummer—I had rather see a cowboy serving at the altar of the High Priest than contemplate the mutilated way in which we hobble along as a nation in these things.

Our fires must be annual, regular as the spring season; but always in the spring; not always in the summer and fall: never in the summer or fall. Far better have frosts in May.

It was my fate to spend my boyhood with Indians. They were the only true foresters I ever knew. In the spring, after the leaves and grasses had served their time and season in holding back the floods and warming and nourishing the earth, then would the old squaws begin to look above for the little dry spot of headland or sunny valley. And as fast as dry spots appeared they would be burned.

In this way the fire was always under control. In this way the fire was always the servant, *never the master*. And by the time the floods came again there was another coat of grass and leaves stronger and better than the one before, because of the careful and temperate fire of the careful and wise old women. By this means the Indians always kept their forests open, pure, and fruitful and conflagrations were unknown.

I say, then, let the forests be placed in the hands of those who live in or near them, and have some heart and some interest in their preservation. I say that the life and duration of this nation depend on her walls of wood, more than ever did that of Athens; and I say further, that while we *may* plant our valleys we *must* preserve our mountains.

Let the few remaining millions of forest lands be conceded to the States, and then on down to counties, and even smaller divisions—school districts for example. And then let the forester of plain, hard, common sense, follow the Indian's simple method of preserving his property, and my word for it, neither New York, Louisiana, Michigan, nor California need fear flood or fire, drought or drowning rains. We would then be getting back near to Nature, and Nature never betrays her own. Who ever heard of either flood or fire in the Indian's home until the white man came to make it his monopoly?

The work of many men with ax and fire would require many years to reduce the trees of the Yosemite to the number that were there when the valley was discovered.

But none are or ever have been using either ax or fire for such a purpose. The only organized destruction of the valley's forest was attempted many years ago, when the State's primacy was disputed by squatters and John Muir helped run a sawmill, using Yosemite Falls as water power. Muir logged and sawed the trees of the valley for commercial purposes, and the mill was finally suppressed by the State, which he now falsely accuses of "rapidly destroying all that is accessible and destructible in the valley."

The floor of the Yosemite is about nine thousand acres in area. Of this, seven hundred and forty-five acres are meadow or treeless lands formed in the angles of the Merced River by the overflow of that stream. When the river in flood makes a new channel, it forms a new angle and makes a new meadow by overflowing and killing the timber that lies in its new flood path. At the same time it abandons an old meadow in the angle from which it retreats. While its floods are killing the resinous timber in its new flood line, the meadow in the path of its old flood line is springing up to young pines and other conifers. These it will destroy when its erratic mood moves it back to its former channel.

These meadows are not made by the ax to make room for the plow. Cultivation has never been tried on more than two hundred acres of the entire floor, and its results were never such as to encourage its continuance. The soil is too sterile for crops, and the season too short for their maturity. At a point of overflow, eight acres of pine thicket were bogged a few years ago, and when it was nearly all dead the ax was used to clear it away. The stumps were cut high, and while they were standing it was photographed, and this picture has been represented by the "Century" as a sample of the condition of the whole floor of the valley—a falsehood for which the magazine should at once apologize to the thousands of intelligent visitors to the valley, who know by the best evidences of their own senses that it is a peculiarly mean and contemptible libel.

A companion picture, used in the same way, is of a plowed field in one of these meadows upon which an attempt was made to raise a crop of hay. The inference left by the "Century" was that the whole floor of the valley was in the condition of this field, which, of course, was false and known to be so by the men who, by these means that no gentleman would use, try to discredit the good taste and sensibilities and honor of the State of California as trustee of this Federal trust.

To conclude this exposure of the few truthless rascals who have tried in many ways to destroy interest in the Yosemite by the most amazing falsehoods that have ever been strung together upon such a subject, the Commission offers the following letters written by recent visitors to the valley, giving their impressions of its condition and management. They were written in response to a request from the Secretary of the Interior, Hon. John W. Noble, in the course of an investigation of these libels ordered by a resolution passed by the United States Senate:

To the honorable Secretary of the Interior:

In compliance with request of Mr. Newsham, Special Agent of the Interior Department, I have the honor to submit the following statement of observations made in the Yosemite on the occasion of a recent visit to the valley:

Without information on the subject other than that conveyed to me in the briefly stated request, I assume the object to be the collection of material in regard to the manner in which the State has discharged its trust, for the use of the department, a very important element of which must naturally be the evidence of disinterested parties who have recently visited the valley. Such being my view of the information sought, I will endeavor to confine myself to that line of statement. I fear, however, it will be impossible to entirely disabuse my mind of the impression made by the publications on the subject, and that I shall be found giving my evidence the form of denial where simple assertion would be more direct. In my judgment, there should be a most earnest protest by every intelligent person who has enjoyed the supreme emotions awakened in this "unique pleasure ground" against the utterly groundless accusations made in the publications referred to. The character of the medium adds to the offense.

The Yosemite Valley lies in its rugged setting a gem of quiet rural beauty. The whole effect is park-like. There is not now, nor is there any evidence that there has ever been, the dense columnar growth of giant pines that adorn the higher mountain slopes. I was at once impressed with the careful manner in which the natural features had been preserved. Too much cannot be said in commendation of the roads and trails in the valley and its environs. Every traveler knows that a good road is the great desideratum, and good roads the Yosemite has, both in the valley and the approaches thereto. When the difficulties to be overcome are considered—the steep mountain slopes, the winter storms (snow falling in these altitudes annually to the depth of from ten to twenty feet, and remaining on the ground as late as April or May)—the valley was not opened until May this season—this important fact will be appreciated. So late as July, when my visit to the valley was made, the mountain sides were strewn with fallen trees and other debris, washed down by the snow-fed torrents. Not only along the watercourses were these indications noted, but whole mountain sides had the appearance of having been inundated. The marvel, then, of these well kept roads and trails will be understood. To reach the points of interest about the valley, trails zigzag up the precipitous surrounding walls, or make a pretense of utilizing some convenient cañon, still climbing steeply up where there seems scarce footing for a goat, viewed from below. It was a constant wonder to me that these air-hung footways were, throughout miles and miles of extent, ever and everywhere so well cared for. Air-hung was ever the effect upon me. I seemed not to be so conscious of the wall to which I clung, as of the fathoms of unfilled space below.

For all this road making horses are needed, and that road and trail may be utilized, horses are needed. That any rational man should object to horses in the valley is a wonder to me. Not every horse is available for this service, but in the valley is kept a stable well supplied with sure-footed, well trained bronchos, mules, and burros perfectly adapted to the service; so perfectly trained are they that though large numbers are on the trails daily, often ridden by inexperienced ladies and children, the first accident is yet to be reported. The rate for this service is fixed by the Board and is not more than would be charged for a saddle horse for the given time in San Francisco.

It is estimated that not less than one thousand persons will have visited the valley this summer who went in their own conveyances and camped in the valley. Judging from the number who were continually coming and going during my stay, I should think the estimate entirely too low. It is probable that this class of visitors have not taken far from eight hundred to one thousand horses into the valley. We must conclude that horses cannot be excluded from the valley unless we decide to close the grand cañon to the people and devote it to the "fineness of wildness" unvisited.

No horses, cattle, or hogs, however, are at large in the valley; of the last named I believe none are kept anywhere. If it were so, any one at all acquainted with porcine nature knows their presence would be made known right speedily, and they would become an unendurable nuisance in a place where there is so much camp life.

A butcher has the privilege of furnishing meat to the people in the valley during the season. We were served with beef as juicy and toothsome as the California market affords, and at about the same price. Milk also is obtainable, and at the price at which it is sold in agricultural districts. The hotels furnish accommodations at slight advance on rates charged for similar service at the seaboard cities. That horses and cattle, needful for the purposes named, may be kept, it is really necessary that a portion of the ground should be fenced for pasturage, and, happily, the conformation of the valley makes this possible without injury to tree or shrub growth. In the Yosemite Valley, as in most, if not all mountain valleys, there are low-lying lands near the watercourses, where the water collects on the melting of the snow. These become, in a measure, waste tracts. No tree or shrub of any value, in a scenic sense, grows too near. Certain tracts of this swale have been fenced, and here, without injury to "the gardens and groves" of the valley, is a place of security for the needful cattle. In my judgment, this touch of rural utilitarianism does not detract from the wild beauty of the surroundings. In any case, there appears to be a necessity that cannot be avoided.

Notices are posted as to penalties for injury to trees, etc., and it is certain that these warnings are heeded. Unusual care must be taken as to fire. In all my wanderings about the valley I saw but two places where there had been fires, and these had been extinguished without doing much damage. This is a remarkable showing, for in the surrounding forest fires are of frequent occurrence, without half the provocation.

There is no evidence that the valley has ever been more heavily wooded than it is now. The natural inference is that it has not. Valleys similar to this are of not infrequent occurrence throughout the Sierras—I refer to the valley floor. These are never heavily

wooded except where there seems a crowding together of pines, or cedars, or laurel in distinct groups. There is the same manner of growth here; the same groupings, the same lawn-like stretches of open field with a thousand hues of plant and flower—a very carnival of color. There are no really large trees, and but few that Wendell Holmes would consider worthy of his tape. A red spruce, which is said to measure twenty-eight feet in circumference at the base—I did not prove it with the line—is believed to be the largest. The snows and storms of winter break down many trees and uproot some. Especially where the oaks predominate is the ground spread with a wreckage of branches. This is a well known characteristic of the California oak, gnarled and ragged in growth, but without the vigor of its species east of the Rockies. There was not in July last, any “hacking or hewing” being done, or any evidence that any had been done; nor was the axman engaged in any more desperate task than removing this wreckage. Laborers were employed, also, in disposing of decaying logs and litter of the kind. Even these must be sought to be seen. Half a dozen laborers employed along seven or eight miles of well wooded country do not attract attention.

The Commission may well congratulate itself on the condition of the valley at this time, and may safely challenge inspection, confident of the result. So long as human wisdom is fallible, there will undoubtedly be lapses; but no mistakes are being made along the line of destruction. Natural features are preserved. The genius of the place will brook no meddling of the puny landscape gardening kind. However, there will continue to be malcontents, and the hypercritical will be heard bemoaning the lack of wisdom in all men else. This Yosemite Valley agitation has been carried to the verge of absurdity, and it is absolutely groundless. I well remember more than ten years ago, when Nordhoff, dissatisfied with Yosemite management, believing that he had a mission of reform, advocated its transfer to a wealthy corporation. California's experience with corporations has not been such as to lead one to consider the suggestion a happy one; yet this clear-headed writer advocated this with much fervor through several chapters.

The Guardian of the valley is the Commissioner's resident agent. All charges, rates, etc., are fixed by the Board, and the Guardian is here to see that all rules are obeyed. A summer vacation may be spent at the Yosemite now with as little expense as at any other resort on the coast—a very wonderful improvement, indeed, and one that will make it possible for “the people” to enjoy the grouped grandeur of this wonderland as they could not else.

Very truly,

MRS. L. M. WILLIS.

ANTIOCH, CAL., November 18, 1890.

SAN FRANCISCO, November 20, 1890.

The honorable Secretary of the Interior, Washington, D. C.:

SIR: In reply to a note received by me to-day from Mr. John P. Irish, one of the Board of the Yosemite Valley and Big Tree Grove Commissioners of the State of California, which note was requested by Mr. Newsham, Special Agent of the Interior Department, asking that I forward to your address a statement of my observations in the Yosemite Valley, etc., I would state that I first visited the Yosemite Valley in June, 1876; again in July, 1885. My last visit was in July, 1889. I have been considerably interested in the criticisms on the management of the valley published in the magazines and newspapers of the East, as well as in the newspapers of California.

I fail to find the acts of vandalism, the fencing in of large tracts, and the desecration of the valley, as described in the communications which I have read. It has struck me that these criticisms were not correct; that in the general appearance of the valley there is nothing that seems to have been changed by the act of man, save, perhaps, the fencing of some small plots for the raising of vegetables, and to preserve a portion of the meadow for the purpose of raising hay to sustain the animals that are necessary to be kept in the valley.

The roads and trails that have been made are such as are absolutely required. They have been kept in order, and do not in any manner disfigure any portion of the natural scenery. As far as I could observe in all my visits, the Commissioners and the Guardian have been careful in every way to preserve the natural appearance of the valley.

I do not know what I could say more, except in the way of praise as to the management. As I said before, I feel that the criticisms were unjust that have been made; but, emanating from a respectable source, they have commanded attention, but, in my opinion, have misrepresented the affairs of the valley. Certainly, in the general appearance of the valley, nothing has been done by the Commissioners to impair its beauty and grandeur.

Very respectfully,

JAMES B. STETSON.

SAN FRANCISCO, November 22, 1890.

Hon. JOHN P. IRISH, San Francisco:

DEAR SIR: In reply to your communication of the fourteenth instant, relative to the Yosemite Valley and the management thereof, I have this to say: I visited the valley the latter part of August and found it in good condition—large volumes of water flowing over the falls, and the floor of the valley all that could be desired. Some improvement might be made, so far as the views are concerned, by a judicious use of the ax in remov-

ing underbrush and obstructing limbs of large trees, thus making its many attractive points more easily seen and enjoyed.

In regard to the roads in the valley, I found them in splendid condition—in fact, the most pleasant mountain roads I ever traveled. As regards the trails, it was only a matter of surprise to me that, considering the wonderfully mountainous nature of the country, even such good trails could have been constructed; while in some places they are precipitous—the nature of the country precludes the construction of any other kind. My cousin, Miss Russell, of Frankfort, Kentucky, who accompanied me, is a traveled lady and is enthusiastic in her expressions of admiration over this, Nature's grandest beauty, and neither of us finds anything in the management of the valley to condemn; but, to the contrary, find much to commend.

Yours very truly,

J. R. WILCOX.

OFFICE OF DISTRICT ATTORNEY, FRESNO COUNTY, }
FRESNO, CAL., November 25, 1890. }

To the honorable Secretary of the Interior, Washington, D. C.:

MY DEAR SIR: I have been requested by the Secretary of the Board of Yosemite Valley Commissioners to make a written statement of my observations in the Yosemite Valley during recent visits.

I have visited the valley in the months of July, in 1887, 1888, 1889, and 1890, on each occasion by the route from Raymond to Wawona, and from that point into the valley. The stage road into the valley, especially that portion from Wawona by way of Inspiration Point, was in excellent condition, and abounding in the most sublime mountain scenery.

The stage line was splendidly equipped with good wagons, and horses, and careful drivers. The hotel, where I stopped, kept by Mr. Cook, was very comfortable, clean, and gave excellent fare, with very reasonable charges.

The trails in the valley were in very good condition and, in my opinion, perfectly safe. The animals furnished me in the valley for riding and driving were very satisfactory, and the charges for same were reasonable. There are some places on the floor of the valley where trees have been cut down, and other places used for the cultivation of hay and fruits; but, in my opinion, these matters do not in any way interfere with the great sublimity, beauty, and grandeur of this most glorious portion of God's handiwork.

Its waterfalls, its depth, and its granite sides constitute its greatest attraction.

I am very respectfully yours,

W. D. TUPPER.

To the honorable Secretary of the Interior:

Receiving the other day a communication asking me to state my opinions in regard to Yosemite, I was naturally very much surprised. On inquiry into the matter, and learning the purpose for which the question was asked, I deem it a pleasure to write of my impressions. That the valley is grand, picturesque, sublime, there is no doubt. That it is well cared for, well kept, thoughtfully tended, there is also no doubt. Charges of "vandalism" have, I hear, been made, but upon what grounds I am at a loss to determine. It is very easy to grumble upon paper, and talk about waste and spoliation, but let those who are dissatisfied with the management come to the valley and behold for themselves, and they cannot but see how utterly baseless the charges are. As to "vandalism," I should myself plead guilty to the wish that I might be allowed to "clean house" in the valley, and burn up a few of the miserable sheds, cabins, and rookeries that are a blot upon the landscape. Otherwise, in its solemn beauty, its natural wildness, its undisturbed serenity, Yosemite is perfect. If there be any place in this world where, untrammelled and free, one can look up "through nature to nature's God," it is in this valley. Far distant, nay, I hope, never may dawn the day when the whistle of the locomotive, the tread of the railway, shall disturb its silent grandeur, invade its great calm. Were more money on hand to make new trails and open new highways to nature's heart, it were a good and much needed thing. Still, with limited means much has been accomplished. But, in my opinion, nothing that could in any way mar its attractiveness, its repose, its wild perfection, has ever been attempted.

Respectfully,

JEAN S. KLINCK.

SAN FRANCISCO, November 27, 1890.

SAN FRANCISCO, CAL., December 4, 1890.

Hon. JOHN P. IRISH, 26 Montgomery Street, City:

MY DEAR SIR: In answer to your letter of November nineteenth, requesting my impressions of Yosemite Valley, permit me to state: I found no evidences of any devastation whatever in the valley. With the limited amount of funds at the hands of the Commission, it is surprising how well the affairs of the valley are conducted. Of course, the appropriation should be largely increased. It seems almost childish to hope to do any-

thing with \$10,000 or \$12,000 per annum in this great valley, when our own Golden Gate Park takes a hundred thousand a year to keep the grass green. I think that the underbrush in the valley should be thoroughly cleaned out so as to give the impression of a park as much as possible. There are some beautiful trees throughout the valley whose proportions are almost hidden by the rank growth of underbrush and weeds. The criticisms that I have seen in the various publications to the effect that the valley was being devastated are uncalled for.

I found the stage accommodations and the saddle horses very efficient and the employes very courteous. What is needed is a sufficient appropriation to make better and stronger roads, permanent bridges, a general cleaning out of the underbrush and small trees, and sufficient banking and levying to control the overflow of the small streams. With these improvements, a visit to the valley would have all the comforts and luxury of a country drive, with all the romance and grandeur of this most wonderful monument of Nature's handiwork.

Yours very sincerely,

JOSEPH D. REDDING,
Attorney and Counselor at Law.

NEW ENGLAND MUTUAL LIFE INSURANCE COMPANY OF BOSTON, MASSACHUSETTS. }
SAN FRANCISCO, December 1, 1890. }

The honorable Secretary of the Interior, Washington, D. C.:

DEAR SIR: I have had occasion to visit the Yosemite Valley several times. My last visit was made in July, 1890. My observations convince me that the valley is well cared for. I saw no signs of mismanagement, depredations, or vandalism of any kind; on the contrary, there is every evidence that the charges of mismanagement, vandalism, etc., that have been made in certain journals here and in the East, are utterly without foundation of fact, and in every way uncalled for. Some of them which I have seen I have every reason to believe were prompted by spite against certain of the Commissioners, or of those to whom privileges have been let, and others I know to be attempts at blackmail. I believe that the valley and its attractions are zealously and wisely guarded, and that the management is all that can be asked for by the public.

I feel a great interest in the preservation of all the attractions of the valley, and I would not hesitate to criticise its management if I believed it deserving of criticism. I believe the management to be good, and for this reason, being informed by the public press that you are looking into the management of the valley, I address this letter to you.

Very respectfully,

HENRY K. FIELD.

1311 HYDE STREET, SAN FRANCISCO, CAL., }
November 20, 1890. }

To the honorable Secretary of the Interior, Washington, D. C.:

SIR: I have a note from the honorable John P. Irish, Secretary of the Yosemite Commission, in which he says: "I am requested by Mr. Newsham, Special Agent of the Interior Department, that you forward to me at this office a statement of your observations in the Yosemite Valley, stating date of your last visit," to be addressed to you.

With my wife, I visited the Yosemite Valley early in June of this year (1890). Owing to the fact that I was just convalescing from a four months' attack of "la grippe," I did not attempt to go out of the valley up the mountain trails, and will confine myself to what I observed in the valley. Owing to the unusually heavy fall of snow in the mountains last winter, the Merced River and all the streams which feed the various falls were unusually full. The weather during my stay was perfect—every day bright, sunny, warm; the nights delightfully cool. The valley in many places resembled a flower garden on a large scale; there were, in fact, patches of wild azaleas, in some places acres in extent, in full bloom, loading the air with perfume. There were a great variety of other wild flowers, many of them very bright and beautiful. Of course I do not write of the physical or topographical features of the valley: they are familiar to all—fixed and permanent—but I cannot say too much of the freshness and beauty of the verdure.

You are aware of the fact that the valley was the home of a tribe of Indians when the valley was discovered by the whites. You are, no doubt, also familiar with the fact that the Government sent troops there sometimes, and that settlers went in and made their homes there for years before the Government reserved it. During all these years the Indians, the troops, and settlers used the valley, its timber and soil, as they chose; what depredations they committed I know not. I saw some cleared land which had evidently been cultivated: an orchard which must have been planted years before the valley was reserved.

I saw no evidence whatever of recent depredations. The valley, in my opinion, is well kept, surprisingly clean, fresh, and bright. The Stoneman House, at which I stopped, is well kept and comfortable.

I had read some newspaper articles criticising the management very severely, for allowing the valley to be farmed, or rather pastured; for allowing trees to be cut down. I inquired where these things had been done. I was pointed out two or three stumps of

small trees between the Stoneman House and the Merced River, and was told that complaint had been made of the cutting of these: such a complaint struck me as being very ridiculous.

If I were to make a suggestion, it would be to cut away more of the trees and shrubs, and give the valley a more park-like appearance—it could be made a beautiful park.

I heard no complaint from any one while there. The Guardian, Mr. Clark, was very active and attentive. The livery was sufficient, the mules and horses well trained, the guides and drivers polite and careful.

Mr. Charles Dudley Warner was in the valley when I was there, and, I am sure, made very careful observations.

Upon the whole, I have nothing but commendation of the management and the condition of the valley.

I have the honor to be, very respectfully,

L. D. McKISSICK.

PAGE BROTHERS, SHIP AND MERCHANDISE BROKERS, }
302 CALIFORNIA STREET, }
SAN FRANCISCO, November 21, 1890. }

To the honorable Secretary of the Interior:

SIR: Yesterday, on receiving a letter from Mr. John P. Irish asking me for a statement of my observations while in the Yosemite Valley, I was at a loss to see why they should be wanted. On second thought, I remembered some months ago hearing of and reading criticisms of the doings of the Yosemite Valley Commissioners in the way of improvements. I presume, therefore, that it is concerning this that you would have my observations.

I never had, until this summer, the good fortune or chance to visit this wonderful valley of California, so that, of course, I cannot draw or make any comparisons, but certainly nothing that had been, or was being done in any way, when I saw it, could be called vandalism, or devastation, or a spoiling of the natural beauty of the valley. In fact, all that I saw struck me as being very substantial and serviceable. The trails are kept in good repair, and are far safer than the usual mountain trails in Placer County and adjoining counties. So much had been told me about the swindling processes employed by people in the valley, and so untrue did it turn out, that I have made it a point to tell all inquiring friends how untrue it is. I was, and am, really surprised that they do not charge *more* for a mule or a horse for the hard trips they have to make. Guides are usually polite; policy makes them so, and those in the Yosemite Valley are not an exception to the rule. I am very glad to note that the Government will take in all the mountains beyond and around the valley, and so preserve one of the wonders of the world intact forever. In every way, so far as I could judge, those in charge of the valley deserve praise. I think that a *few* of the evidences of civilization do not spoil the valley at all. It only adds to the picturesqueness. The brush is cut and swept away. Useless limbs and dead trees are cut down, allowing one glimpses, through and under the trees, of the Merced, gliding placid and beautiful toward the Cascades.

Hoping that I may have been right in surmising what was meant by Mr. Irish's request, and that what I have written will be of use to you,

I remain yours truly,

ARTHUR PAGE.

REPORT UPON ALLEGED SPOILIATIONS IN THE YOSEMITE VALLEY.

SUB-OFFICE U. S. COAST AND GEODETIC SURVEY, }
SAN FRANCISCO, CAL., November 8, 1890. }

Honorable Secretary of the Interior, Washington, D. C.:

SIR: In answer to your letter of October third, I make the following report:

After finishing the geodetic work at Mount Conness, which lies in the crest line of the Sierra Nevada, about twenty miles northeastward of the Yosemite Valley, I returned to San Francisco by way of the valley and the Mariposa Big Tree Grove.

I entered the north side of the Yosemite Valley by way of the trail from Porcupine Flat and the Yosemite Falls. From the projecting point of rocks just over the falls, and about two thousand six hundred feet above the floor of the valley, I had a panoramic view of the valley well to the eastward and westward. I was not on the highest part of the rim of the valley, for close on the west the granite walls of Eagle Peak rise vertically a thousand feet higher, and on the east the granite walls are much above the falls. On the opposite side of the valley the almost vertical walls rise much higher than where I stood. Looking down into the valley, the Merced River, where it is visible among the trees, is a mere thread, the roads are equally insignificant, and the few buildings are mere dots. The "floor" exhibits a very limited area of cleared or meadow land; in general, it is covered with forest trees which climb to the upper limit of each talus, and grow on the faces of the cliffs wherever they find a chance for a root to get hold.

The view is one of such impressive and suggestive grandeur that the minor details of meadows, streams, and roads are inappreciable.

The descent from the head of Yosemite Falls is by a rough trail that zigzags across a narrow and very steep gorge, occupied to the base of the first leap of the Yosemite Falls by disintegrated granite. The material ranges from dust to great blocks. Chaparral and a few trees cover the slope of the gorge. The descent thence is around the face of Eagle Cliff, reaching the "floor" about two miles west of the Stoneman House.

While in the valley I drove around it by the roads, and as far eastward as Mirror Lake. My walking in the valley was very limited. In coming out I followed the road up the south side leading to Wawona.

The sublimity of the precipitous granite walls rising to such oppressive heights under changing conditions of light and shadows naturally controlled my study; nevertheless, in my drives I was alive to the conditions of the floor of the valley, and carefully noted the character and location of the roads, the bridges, the trails, and buildings.

In deciding upon the character of all "improvements" in such a valley, it may be safely asserted that no two engineers and no two Commissions would agree, and therefore I cannot criticise what has been done further than to say that I should have done some things differently from what has been done. With restricted means it is difficult for any body of men to say what should be done first, or how it should be done. Furthermore, I am satisfied that the citizens living in the valley, and the visitors to the valley, would never be united upon any one scheme of "improvement," either with ample or with insufficient means. As it was, I found great discordance of views in the valley; and it was evident that strong personal feelings clouded unprofessional opinions.

I was awake to charges of despoliation, but I did not see anything that could, in common fairness, be strained to sustain the charge.

On the contrary, a single storm in the winter will certainly do more damage to the forest trees than any Board of Commissioners could do in many years. Mr. Hutchings has informed me that where he built his sawmill years ago near the Yosemite Falls, he cut up more than one hundred trees (117) that had been blown down in that immediate locality. I saw large trees in the river that had fallen from the banks undercut by last winter's freshets, and other trees that had been uprooted by storms.

There are many places where the forest would be benefited, and the views beautified, by judicious cutting. There are many standing trees that have been injured by storms and by fires, and many that have abnormal growths that may be gradually removed. Moreover, all such wood, from storms and from cutting, is necessarily needful and useful to the few people in the valley.

When leaving the valley up the long incline I failed to see from the heights any scarring and despoliation that marred the marvelously sublime picture stretched beneath and above me.

I did not see stray animals, nor any undue number of horses or cows. As a large quantity of hay is brought into the valley from distant places, it would appear evident that no excess of animals above the needs of the valley would be kept under such circumstances. I saw one barbed wire along a fence of limited length, and it offended my eye as altogether unnecessary. Yet it was not a cobweb under the height and glory of the Royal Arches and the North Dome.

After my return to San Francisco I called upon one of the Commissioners, with whom I was unacquainted, and expressed my astonishment at the attacks which had been made upon their work. It seemed to me that some trifling discontent had at first prompted the search for minor errors, or the results of differences of opinion. The awful majesty of the unique and sublime wonder must have been wholly lost sight of. I advised the Commission that, from my standpoint, they had committed some errors (*vide* lower iron bridge on poor abutments), and that their method of doing work without making contracts for special cases was erroneous (such as the construction of the bridge over the Yosemite Creek above the falls). Yet, viewing their labors as a whole, I could not do otherwise than assure him I was ready to stand by the Commission; and, after hearing many innuendoes and reading some of the attacks upon the body, I have no reason to change my judgment. The Custodian of the valley is alert to his duties, and I believe he conscientiously discharges them.

I do not hesitate to say that the principal work to be done in the valley is engineering. The great freshet of last winter and its effects on the roads and bridges demonstrate that. The building of better roads, with the fullest development of footpaths alongside the roads and through the forests, and the improvement of the present trails, are necessities. The opening of other roads, such as beyond Mirror Lake, the opening of new trails into the valley and throughout the valley, and the building of wagon bridges and foot bridges, must necessarily be undertaken at an early day to accommodate and satisfy the increasing number of visitors.

So far as the foregoing suggestions comport, I believe the natural condition of the forests should not be disturbed.

It seems to me that the money appropriated for the management of the valley is insufficient for any generous plan of improvement.

I think that a thorough topographical survey of the valley, and a study of the Merced River during freshets, are needed to enable the Commission to propose a systematic and broad scheme of improvements.

Mariposa Big Tree Grove.—I visited this grove from Wawona, drove over the roads within the four miles boundary, and stopped for a short time at the log cabin of the Guardian.

The effects of the fire that swept through the grove in the fall of 1888 are painfully apparent. The possibilities of the grove being again swept by fire at any time are patent.

The immediate area around each of the great trees that I saw appeared to have been cleared of brush to save them if another fire should occur, but their means of protection are certainly inadequate in the presence of so much inflammable material throughout the forest and its surroundings.

Mr. Chapman (the surveyor temporarily employed by the Commission) had just finished a survey to recover the old section marks, and thereby define the two-mile sides of the grant. He had laid out the lines of roads, and had finished some interesting measures of more than a hundred of the largest trees, and had located other hundreds. Beyond that his duties ceased.

I was astonished to see that no thorough or adequate efforts were being made to protect the grove from destruction by fire, and I informed the Commissioner that the present Guardian was, on account of his habits, not the proper person to whom such a trust should be confided. The Commissioner coincided with my views. A young, active, sensible, and conscientious Guardian, appreciating what is needed and proud of the responsibility of such a trust, with one or more assistants of similar character, would soon give a sense of security against fire, and improve the condition and appearance of the grove.

A topographical survey of the grove and the immediate surroundings is needed to enable the Commission to lay out more roads and paths, resting places for visitors, water troughs for animals, etc., for the surface is very irregular, and the differences of level within the grove probably exceeds five hundred or six hundred feet.

All the improvements require a fair appropriation.

Very respectfully,

GEORGE DAVIDSON,
Assistant U. S. C. and G. Survey.

2311 UNION STREET, SAN FRANCISCO,
November 26, 1890.

DEAR SIR: Yours of the seventeenth instant would have had a more prompt reply had it not been that my eyes have been in no condition for writing, and, even now, I dare attempt but little.

In the early part of August I went with my wife and child to the Yosemite Valley, though the greater portion of my stay was at that most charming spot, Wawona Station, and from whence I went with a hunter twenty miles farther back into the mountains after bear and deer. The spots I there visited I shall never forget, especially the head of the South Fork of the Merced River. Every foot of those mountains is well worth treading. As to the valley itself, it has been so oft spoken of that I do not care to go over the same words that every writer does use on that theme. If it be that you desire to know what a traveler thinks of the management of the valley, I think that those who have so publicly made complaints scarcely realize the difficulties that have had to be met. I do think, however, that never should a tree fall without the greatest reason for it. Around the Stoneman House I can conceive that more trees would have made a picturesque spot; whereas, now the bareness around causes a cold shudder when compared with the luxurious wealth that Nature crowds around everywhere else. I think the Stoneman House is itself a pretty building, and inside Mr. Cook makes everything delightful for visitors. Bill posters should be tied in a sack and deposited, with their hideous goods, in the river hard by (if only for a season): such are an annoyance anywhere, but in the valley they become an abomination. I cannot agree with those who would do away with all fences—we are living in the nineteenth century, and, if we are to ape the centuries past, we must have many things in the valley which we are just as well rid of. I think that campers need to be very closely watched—fire follows them too often, and tin cans are an eyesore.

Yours faithfully,

WM. WASHINGTON BOLTON, M.A.

LOS ANGELES, CAL., November 21, 1890.

To the honorable the Secretary of the Interior:

SIR: At the suggestion of Mr. Newsham, Special Agent Interior Department, I forward you a short statement of observations made in the Yosemite Valley during the present year. Business engagements render it impossible to elaborate.

In the early part of June, accompanied by my wife, I made a trip to the Yosemite, taking the stage at Raymond. The ride from Raymond to the Stoneman House, in the valley, occupied a day and a half, the first day's trip commencing at 7 o'clock A. M., and terminating in the evening before dark at Wawona, a very charming spot. There we remained, and such is the regular programme, over night, resuming the ride at a convenient hour in the morning. The coaches used are exceedingly comfortable and well equipped. The stock is good, the drivers competent and polite. Though there is considerable dust upon the road, it was nothing more than the condition of the season and country rendered unavoidable. The grades are good and the ride as agreeable as a stage ride can be in the summer time. I have ridden upon stage coaches, off and on, for a number of years, and was especially familiar with this method of conveyance in the earlier days of California, and I do not believe that I have ever ridden in more comfort-

able wagons than those which are used to accommodate the Yosemite tourist over this route. After arriving in the valley, I took pains to personally ascertain the truth of several accusations which I had heard made against the present Commissioners and their predecessors. As one of the members of the California Senate, I had heard a great deal of testimony concerning the management of the Yosemite Valley, and had personally examined several witnesses touching the charges made, and therefore had some antecedent familiarity with the subject. To begin with: I saw no appearances of devastation. In the neighborhood of the Stoneman House there were indications that a number of trees had been felled. This was attested by a few remaining stumps. Some of these trees had been cut away to permit a view from the porch of the hotel of the Yosemite Fall, which, dropping one thousand six hundred feet, presents a very remarkable appearance, and this fall can be very plainly seen from the hotel veranda. I am also informed, and I have no doubt that the statement is correct, that it was deemed advisable to remove the timber from the immediate vicinity of the structure, because storms sometimes visited the valley, and, in such case, there would be danger of the pines falling upon the building, and also because the presence of heavy timber would result in the accumulation of a large number of mosquitoes and the consequent annoyance of the guests. As it is, the mosquitoes are quite prevalent a short distance from the hotel, but I did not observe any within it. Individually, I incline to the belief that it would have been better had a few additional trees been suffered to remain within one hundred feet or so of the hotel, although there is yet a sufficient quantity of timber there to suit the tastes of most people. In several places in the valley young pines have grown up so thickly that the soil, although rich, is incapable of fully supporting them, and I believe that a little judicious work with the ax in these localities would be advantageous. I have no doubt that the Commissioners would make this improvement, but there has been so much said to the effect that they are cutting all the timber out of the valley and making it a desert, that they probably feel compelled to let Nature take her course.

With reference to the accumulation of dirt or filth, I saw no evidence of anything of the sort. There were a good many campers on hand during my sojourn, with several of whom I was personally acquainted. They seemed to be satisfied, and appeared to have no difficulty in getting along. There was a great deal of snow on the Sierras this year, and several of the points usually visited by tourists were not reached by me. However, I went over several trails, using for the purpose the stock of Coffman & Kenney, with whom the Commissioners have contracted with reference to supplying visitors with guides and horses. The trails are very well constructed, and are, as experience has shown, safe. To a person in the valley it seems impossible that a human being, much less one mounted on a horse or mule, can ascend the precipitous sides of the rock which nearly incloses this wonderful place. Nevertheless nearly all of the ladies whom I observed during my visit, and there were many of them, were able to readily ascend these trails on horse or mule back. The guides were efficient, safe, and very polite, and the mules manifested far less stubbornness than some of the riders. The charges for this service are not excessive. You are probably aware that it is very difficult to get fodder and supplies over these mountains. At least it is decidedly expensive. I believe that some improvements could be made in the Yosemite with great advantage to the State and the public generally (but not without most liberal appropriations), and though it is not absolutely essential, it is nevertheless most desirable that additions should be made in the hotel accommodations. The Stoneman House, which cost the State, I think, \$40,000, was honestly built, but if I had my way about it, I would erect a large building, not over two stories in height, and with somewhat better rooms than contained in this edifice, and I would permit higher hotel rates so that the eating might be first class. The tourist can get along very well as it is, but I think the average visitor would rather pay a little more and get better fare. The gentleman who keeps the hotel is accommodating and treats his guests properly, and probably does as well as he can under the circumstances.

The Commission is entirely competent. It is comprised for the most part of gentlemen of taste, and several of the Commissioners are persons who are ardently attached to the particular business incident to their office. I am satisfied that they do their duty faithfully. I do not believe that any change in the management would operate advantageously to the public. The Guardian now in charge is an intelligent, active old gentleman who has lived in the mountains for years, is thoroughly posted, not only as to the valley and its surroundings, but is a person whose conversation upon incidental subjects is interesting, and I thought he was particularly zealous in carrying out his work.

It is my judgment that the Government should reserve from sale a large portion of the high Sierras and those wonderful forests, which are referred to, I think, in the Vandever bill.

With reference to the Mariposa Big Tree Grove, the Commissioners are doing their best, but I think that it would be advantageous to provide additional funds to be expended in protection against fire. This will, no doubt, be attended to by the Legislature.

While in the valley, I discussed many of the subjects which I have mentioned with intelligent tourists who have traveled over the greater portion of the globe sight-seeing, and none of them made as much criticism as is contained in what I have written. I learned, by means of the investigation of which I have before spoken, that there was a great deal of fuss made about nothing, and you undoubtedly know that a busybody with newspaper influence behind him can make much noise. A personal inspection of the valley is the best answer to the charges made against the Commissioners.

Yours, etc.,

STEPHEN M. WHITE.

SAN FRANCISCO, November 18, 1890.

Honorable Secretary of the Interior:

DEAR SIR: It was my good fortune to spend the last few days of June of the present year in the Yosemite Valley. I did not find that the *Grand Old Temple* had been at all marred by human hands.

If there were any signs of "vandalism," I failed to discover them. I visited or climbed the Glacier Point, Sentinel's Dome, Yosemite Fall, Vernal and Nevada Falls, and explored the Little Yosemite. Nowhere did I discover that any violence had been done to this, the great work of the Great Master. I mingled freely with the tourists, and do not remember to have heard a single expression of dissatisfaction as to the management.

I found a number of my friends among the campers, and visited one camp. If there was any dissatisfaction among them they did not betray it or speak of it. A lawyer from Oakland did say that "the scenery was too sublime for his taste—that he was rather overwhelmed."

The guests at the Stoneman House, where I stopped, did not express any dissatisfaction. On the contrary, all seemed to feel that the management was all that was desired. The bill of fare was fine and the terms reasonable. The courtesy of proprietor, clerk, and servants was all that could be expected, and more than elsewhere is often found.

Every attention and consideration for the safety of tourists was given by the guides and those having charge of the "saddle train" department.

These, sir, were my impressions as to the management—impressions shared, if I am not mistaken, by the great majority of tourists—*unanimous*, as far as my knowledge goes.

As for my trip, the impressions were such as I hope never to part with. Amen!

With respect, I am,

J. HANNON.

SACRAMENTO, November 18, 1890.

To the honorable Secretary of the Interior:

DEAR SIR: I have been requested by Mr. Newsham to furnish a statement of my observations in the Yosemite Valley during my visit of July last—my third in the past eight years. I noticed *many* improvements, new drives, new bridges, new and improved trails, etc.

The grounds for camping were pleasant, and in conversation with the campers I heard no complaints about their location, or of unfair treatment. The water had been unusually high after the severe winter, and still covered some of the walks; but the abundant moisture made the vegetation rank and luxuriant, and as there was no stock running at large it appeared like one vast meadow.

I put up at one of the hotels, was well treated, and did not think the prices exorbitant, considering the long distance from market and the cost of getting their supplies over the mountains. Neither did I pay more for carriage or saddle horses than anywhere in the State, though the cost of keeping them is much higher. In fact, I saw nothing to criticise, but much to admire.

Respectfully,

L. C. MOREHOUSE,
Member of State Board of Equalization.

SAN FRANCISCO, November 20, 1890.

JOHN P. IRISH, Esq., Secretary Yosemite Valley and Big Tree Commission, City:

DEAR SIR: Owning your favor of November eighteenth, I am somewhat at a loss to know what you desire.

I would state briefly that I was in the Yosemite Valley in the latter part of July, and found the accommodations for getting there perfect; the stages being well stocked throughout, and the roads kept in good order, barring dust. The accommodations en route were first class in every and all respects. I can say the same in regard to the valley, although I do not consider the hotels in the valley equal to Wawona, but at the same time they are excellent.

I consider the management in the valley to be as good as possible; great care seems to be taken to select good and competent guides with good stock, and although a heavy season was nearly through, the stock was seemingly in as good condition as they could possibly have been when they commenced.

Of course to speak of the valley itself I would simply say that it is not within my power to describe it, and I think that it is one of the few places in the world that is never overrated, and should judge that the oftener one visited it the more beauties he would find it to contain.

It was a most enjoyable trip throughout, and I only regretted the termination.

Yours truly,

H. T. SCOTT.

UNIVERSITY OF CALIFORNIA, COLLEGE OF DENTISTRY,
 L. L. DUNBAR, Dean, 500 Sutter St.,
 SAN FRANCISCO, CAL., November 23, 1890. }

JOHN P. IRISH, *Esq.*, *Secretary Yosemite Commission*:

DEAR SIR: Replying to your favor of eighteenth, I have to say that I was in Yosemite Valley from June twenty-fourth to twenty-seventh last, and in the vicinity about three weeks from June eighteenth. As far as my observations went (I did not take all of the trails), I failed to see any of the acts of vandalism charged against the present Commission or its tenants. I have been an interested reader of the "Century" articles, and am personally acquainted with Geo. McKenzie, who, for some reason, seems to have a special grudge against the Yosemite management.

In three visits to the valley since 1884 I have never seen anything to criticise except the extraordinary privileges granted to the lessees at that time (1884). These abuses have since been corrected.

As for the charge "standing stumps," "tomato cans," and "camp ofal," there is no shadow of truth in it. I have ridden and tramped all over the floor of the valley, and with the "Examiner" letters in mind have vainly sought for evidence to verify their statements. Any one who saw the valley in 1881, 1882, 1883, and 1884, would have wondered to see in 1889 how effectually every vestige of the disfiguring barn and corral, as well as the buildings comprising Black's Hotel, had been removed and that part of the valley restored to its original beauty. What trimming of trees has been done is an advantage, and personally, I have nothing but good words for the management of the valley.

Yours truly,

L. L. DUNBAR.

OAKLAND, CALIFORNIA, December 2, 1890.

To the honorable Secretary of the Interior:

DEAR SIR: In reply to your favor asking me to communicate the result of my impressions during my recent visits to the Yosemite Valley, I beg to say that my admiration for the magnificent scenery of that marvelous region was so absorbing, and my preoccupation with its natural beauties so filled the single week of my sojourn in the valley as to leave me neither time nor inclination for any critical study of its management.

I have read the "Century" articles, however, since my return, and confess that they seem to me to exaggerate in their charges against the former Commissioners, and to distort the facts of the present situation. No such evidences of unwise or discreditable management as these articles allege met my eye, unless it be in the location and construction of the hotel, erected by a previous Commission, which is a matter of minor concern in the present discussion. Two things were evident to me—that the Merced River is an unmanageable and rampagous stream, and responsible for most of the havoc so ungenerously fathered on the State Commissioners; and, secondly, that the present State appropriation is inadequate to properly control the river and keep up the needed repairs and improvements which the valley demands.

As for the present Commission, it was in session during a part of my stay, and I was impressed with the sincere and abounding enthusiasm for this great display of nature, and their manifest desire to preserve its beauties and render them accessible to the traveler from far and from near. As several members of the Commission have had many years' acquaintance with the valley, and feel keenly the responsibility and honor of their charge, and as they are, furthermore, men noted throughout California for their intellectual and practical ability, it would seem difficult to secure under any administration of the Yosemite a more competent and faithful management.

With respect, I remain very truly,

CHARLES W. WENDTE.

To the honorable Secretary of the Interior, Washington, D. C.:

SIR: I beg to submit a few observations in reference to the Yosemite Valley and the Mariposa Grove of Big Trees:

I first visited the Yosemite Valley in May, 1866, entering it by the Coulterville trail. At that date there were no wagon roads within sixty miles of the valley. There were no hotels or accommodations except those of Mr. Hutchings and Mr. Lamon, who had taken up or purchased claims there. Hutchings' Hotel was the only stopping place for tourists. There was also no saddle train in the valley, and our horses were procured in Coulterville. The trails were, at that date, but little improved, and very rough, and only a few of the chief points of interest could be reached on horseback by the help of a guide. In my first visit to the valley I spent a week, and visited the Vernal and Nevada Falls and all the waterfalls in the valley proper.

Our company went out of the valley on May 30, 1866, by the Mariposa trail, using the same horses which had brought us from Coulterville. We reached "Clark's" (now "Wawona") the same evening through a tremendous snow and rain storm, where we stayed over night. The day following we rode by a bad trail to the Mariposa Big Trees, a

part of the way through from two to four feet of snow, and saw the "Fallen Monarch" and the "Grizzly Giant." I have since seen the whole grove of more than six hundred trees. Returning, we spent a second night at Clark's, and the following day, June 1, 1866, we proceeded on our way, by horse with our trusty guide to the mining town of Marioposa, where we took the stage to Stockton.

I visited the valley again, with my daughter, during the past summer—a lapse of twenty-four years since I had first seen it. The contrast between things then, and now, is something very remarkable, as the facts will show. We left San Francisco by rail on the evening of June 4, 1890, arriving at Raymond on June fifth, sixty miles from the valley, where we took the stage, reaching Wawona (Clark's), thirty-five miles from Raymond, in good time in the afternoon and stayed over night.

The roads, the stage accommodations, and the stopping places on the way were all excellent, and the drivers throughout were uniformly courteous and gentlemanly. "Clark's" had been transformed from the early log house into a fine and well-appointed hotel, with beautiful grounds and fountain in front; and we had every comfort and accommodation that could be desired by weary travelers. On the morning of the sixth of June we left Wawona in a large, comfortable open stage coach for the valley twenty-six miles distant. Snow had all disappeared from the roads, and the stage road itself, apart from heavy grades, which made the progress slow, was in excellent condition; and we descended into the valley from "Inspiration Point" a little after noon by a magnificent grade, which was in strange contrast with the rough, uncleared trail which I had taken over the same route twenty-four years before. We arrived at the "Stoneman House" about 4 P. M., having halted on the way, at the foot of the "Bridal Veil Fall," and at Barnard's Hotel (the site of the old Hutchings Hotel). We remained in the valley at the Stoneman House from the sixth to the twenty-third of June. During this time we visited all the points of interest in and above the valley; some of them many times. At the Stoneman House we met with most courteous treatment and had every comfort, as well as many of the luxuries of a San Francisco hotel. The roads and trails in the valley and up the heights I found, as a rule, in a safe and excellent condition, showing evidences of much care and attention from the authorities of the valley; and the wonder was how so much had been accomplished with such little means as I know to have been at the disposal of the State Commissioners. The waters were very high in all the streams during my stay, in consequence of the warm weather and the melting snows on the greater heights above the valley; and in many places the roads were, at times, submerged during a part of each day; and in places injury was done to bulkhead walls; all of which showed the necessity of greater means at the command of the Commissioners, so as to raise the grades to more permanent levels along the Merced River and other streams.

The saddle train, as now conducted, is in every way excellent. The animals are admirably trained, well fed and kept; the guides are uniformly courteous and obliging, and the charges are quite reasonable. The charges at the hotels are also moderate, all things considered. During the time of my stay in the valley there were hundreds of people at the hotels and camping out; they were constantly moving about in great numbers in the valley and on the trails, and there was no disorder, nor anything in the way of accident, to mar the perfect serenity and satisfactoriness of the glorious assemblage of Nature's wonders. The complete absence of all rudeness and profanity among the horsemen, servants, and other dwellers in the valley, was very remarkable; and it is a high mark of credit to the present management that there has not been, so far as I know, a single act of violence, thieving, or burglary, or any injury to life or limb through accident on the trails or in the valley within the time of the present regime. Another thing that struck me forcibly in the contrast with 1866 was the immense increase of trees and small undergrowth everywhere visible in the valley, as compared with its condition in 1866; while the majestic Giant Trees of primeval growth seemed to be quite as numerous as in former days. The valley, as I saw it in 1866, was more in the condition in which the aborigines had left it. They were accustomed to burn out the underbrush in the valley, and on the steep and cliffs from year to year; and by this means the trails were kept clear, and the larger timber was better preserved, although some injury was done. In consequence, also, of the openness then existing, much better views existed of the waterfalls and cliffs, from the floor of the valley, in any direction.

I am quite sure that there has been much superfluous and unjust fault-finding with the State Commissioners on the part of certain impracticable tourists in regard to the destruction of timber and the marring of natural objects; and an oversensitiveness to this, together with the lack of sufficient means to carry out great designs, has resulted in the crowded and overgrown condition of certain parts of the floor of the valley. This condition has certainly greatly increased the danger of destruction from fire of the large timber, and added to the burdens of care and anxiety of the Commissioners in watching against and preventing it. And what is true of the valley is also true of the Sequoia Grove, where a fierce fire raged two years ago for some days, and was only overcome at great expense, and by the most heroic efforts on the part of the State Commissioners. A wiser policy, in spite of objections and criticism, would be to have repressed the undergrowth, and thus to have obviated the danger of uncontrollable and destructive fires. In early days the small undergrowth was burned by the Indians, with little harm to the large timber; a fire breaking out now is sure to be exceedingly destructive to the same timber. But so far as the valley is concerned, I saw the same trees that I had seen in 1866, and the greatest care is used to prevent their being destroyed either by burning, felling, or marring by cutting names, dates, etc., upon them. Every year hundreds of campers from all parts of the State are in the valley with their animals, their camp fires, etc.,

and yet no animal is seen at large; fires have never spread through the ferns and underbrush, and no tree or rock has been marred to any appreciable extent. I very much doubt whether two companies of mounted cavalry, constantly riding about, would more effectually protect the valley from all lawlessness and vandalism, than it is now protected by the laws of the State, and by the unobtrusive care and watchfulness of the lessees and employes of the State Commissioners. And certainly the greatest credit is due to the honorable and conscientious gentlemen who compose the State Board of Commissioners for the Management of the Yosemite Valley and the Mariposa Big Tree Grove, for the very efficient way in which, without pay, and in the face of constant fault-finding, they have administered this great and responsible trust, in which all nations and all generations of men are interested.

With high respect, I am very truly yours,

WM. H. STOY, B.D.,

Rector of St. Paul's Episcopal Church, San Rafael, Marin County, Cal.

DECEMBER 10, 1890.

The Commission again calls attention to the response made to its request for the preservation by the Federal Government of the Yosemite watershed. We suggest now that the legislation already had be supplemented by another Act so as to extend the reservation line around the Mariposa Big Tree Grove, and to cover Signal Peak and the neighboring mountain slopes and summits and scenery which merit preservation.

This Commission also suggests that the State of California take measures to induce the Federal Government to station at Wawona and some other convenient point two companies of cavalry to patrol the mountains, expel shepherds and other incendiary visitors who are annually guilty of forest arson in the mountains.

The Commission is also of opinion that it should have the power to expel from the Yosemite Valley and the Big Tree Grove drunken, dissolute, and disreputable characters, who are neither tourists nor workmen, and whose presence is offensive to good morals.

The foregoing letters are suggestive of many things, aside from their value as refutations of the gross and unmanly falsehoods that have been circulated against the management of the valley.

From them may be extracted a few facts of prime importance. First, no soliciting is permitted in the valley; visitors go to the hotel of their own choice. The trail horse service is regulated by the Commission, the prices being less than livery stable prices in any city in the State. The stock is rigidly inspected by the Commission, and kept up to standard. The animals at the close of the season rest till it opens again, being reserved entirely for the saddle and the trails. The result is the model trail service of the world. A ride on the trails is remembered with enthusiasm by every visitor as an achievement to be referred to with pride. The Custodian of the Big Tree Grove is an unsalaried man. It is true that he is an aged mountaineer; he lives in a log cabin among the Big Trees, and gets a bit of income from lodging laborers who open and repair the roads in the grove. A paid functionary on the reservation is desirable, of course, and as the survey has been made this season, and the line of the grant is marked so that a vigorous policy of preservation is possible, the Commission, if furnished the means, will secure such a forester as is suggested by Professor Davidson.

Coöperation of the State and Federal Governments may be found necessary to resist mountain fires. Local control is preferable. While there are a few charred evidences in the valley and in the Big Tree Grove, to show the force of conflagrations in our mountain forests, these are insignificant compared with the destruction wrought by fire in the

Yellowstone Valley, a reservation entirely under Federal control, and policed by a large force of United States cavalry and a large number of civil employés. In the report of the honorable Secretary of the Interior for the present year, we find this on forest fires in the Yellowstone Valley:

In the previous portion of this report relating to the public lands, the great importance of protecting the forests was dwelt upon at some length. Those in the Yellowstone National Park are composed in large part of great trees; the area of the woods is far-reaching, 83 per cent of the three thousand four hundred square miles being timbered, and the headwaters of some of the greatest rivers rise within its borders in the west. The loss of these forests would be disastrous to the vast valley lands that the rivers irrigate, and their preservation is alike necessary for the beauty and grandeur of the park and the safety of the lower valleys.

In regard to this, it is necessary to state that during the last year the forest fires were more disastrous, as stated by the Superintendent in his report, than ever before known in the history of the park. Seventy fires occurred. One between the Yellowstone and Shoshone Lakes was supposed to have been started by lightning; it became unmanageable, and burned itself out. Another started south of the park, and burned its way inward; and a third, a disastrous fire, was, it is said, the result of the grossest carelessness, taking a wide range, and being controlled only by the greatest labor. The troops are reported to have worked day and night in the extinguishment of these different fires, and have no doubt had a severe experience in such service. There can be no blame for these disasters attached to either the Superintendent or the department. The force under him is found to have been well trained and faithful, and when the Superintendent was here last spring, in anticipation of the trouble now detailed, he was supplied with all he demanded at the time for battling with such conflagrations.

He recommends that to avoid these catastrophes there should be regular camping grounds established where campers should be required to stop, and also that there should be supplied two water tanks and the necessary draft animals for conveying the water to the locality of the fires to extinguish them, as water only can when it gets into the roots of the trees. Since his regular report, the Superintendent has written the Secretary that the last year's experience has been of great value to him in the matter of handling campers, and that all who have come within the park have been thoroughly instructed in the matter of making and extinguishing their fires, and that the park has passed through the ordinary season this year with no fires traceable to them. It should be remembered also that much sentiment is attached by our people to this and other parks, and that they rejoice in the pleasures derived from visits to them, and are quick to condemn any severe losses they may there observe.

The reader will note with what promptness the honorable Secretary excuses the Superintendent and the Interior Department of all blame in the matter of these lamentable catastrophes. The meagerness of Federal appropriations for the Yellowstone is complained of, and this complaint will no doubt enlarge with the increase in numbers and area of Federal reservations of a similar character. As to the government of the Yellowstone Park, the Secretary says:

A bill has been before Congress time and again prescribing just laws for the government of the park, under which those guilty of defacing its wonders, destroying its game, injuring its timber, or otherwise impairing the usefulness and beauty of the reservation, would be punished adequately. The bill was carefully scrutinized by the Secretary and many scientific persons interested in the subject, but as it was amended so as to authorize the building of a railroad into the park, the result was that the Act has never passed. There are very strong reasons presenting themselves against the construction of a railroad in a reservation such as this is intended to be, and in the Secretary's last annual report the subject was discussed, and the conclusion reached was expressed as follows:

"So long as this tract of country shall remain a national preserve for science, curiosity, and pleasure, it will of course be an object of cupidity to the covetous, who will see or imagine countless ways in which its exhaustless wonders and resources can be turned into private advantage, and who will invent many artifices to beguile and circumvent the guardians of this national treasure into granting them footholds of one kind or another, whereby they can make personal gain of this great public benefit. If it is not to be thus frittered away, deprived of its most attractive features, and measurably lost to science and wonder, if not to pleasure, the best and surest way to protect it is to permit no trimming down, no incursions, and no privileges except such as may be deemed absolutely necessary for its protection and regulation, and for the proper accommodation and comfort of visitors."

The passage of the bill that is already before Congress is earnestly recommended, with-

out the provision allowing a railroad to be built therein, and it is further recommended that there be incorporated in the bill a provision for marking more definitely the boundaries of the park, and that a sufficient appropriation be given therefor.

Californians familiar with the Yosemite will see at once that the Federal Government may learn much from the experience of California in the management of such scenic reservations.

REQUIREMENTS FOR THE BIENNIUM 1891-93.

Since our last report the State, by Act of the Legislature, without consulting this Commission, has added to the cost of maintenance of the valley by the purchase of the stage turnpike roads within the grant. These roads were constructed by private enterprise, and are marvels of mountain road making, and no fault can be found with extinguishment of private claims to them; but their renewal every spring where destroyed by floods and avalanches, and their repair throughout their length and through the season of travel, with the similar necessities on the trails of the valley, require skillful and experienced superintendence and an outlay of money. The wear and tear of buildings in the valley by storm and tempest, and the unsuspected structural faults exposed by the rigor of the mountain winter; the measures needed to protect the floor of the valley and the Big Tree Grove from fire; the preservation of old trails and the construction of new, and roads and footpaths; the much needed reconstruction and enlargement of the Glacier Point Hotel and the Casa Nevada, all call for a constant and considerable outlay of money for labor and material, where both cost more than in any other situation in the State.

The overflow of the Merced and other streams in the valley is an annual menace to all the roads, bridges, and trees which it can reach. Future economy will be consulted by a comprehensive system of engineering to control at least the main river. This work should molest Nature as little as possible, but should protect her works against the too energetic exertion of her own forces.

One of the iron bridges over the Merced was collapsed during the great storms of the winter of 1890, and now lies in the stream. Professor Davidson, in his letter quoted above, mistakenly ascribes this catastrophe to faulty abutments. The abutments stand intact and ready to receive the structure if recovered, or its substitute when constructed. The Commission is in negotiation with the contractor by whom the bridge was built many years ago, in hope to secure its recovery and reconstruction upon advantageous terms.

It is necessary that the forests in the valley should be reported on by some expert, to the end that the crude suggestions and lying charges made concerning them may be silenced. The services of such an expert dendrologist as Prof. J. G. Lemmon, who has the confidence of the scientific world, and has won renown for the State by his reports upon its conifers, could be beneficially employed in such a work, and his conclusions would be accepted as the end of contention.

The experience of the Commission during the biennium constrains the request that the appropriation for the next biennial period be \$50,000, of which \$10,000 should be devoted to the Big Tree Grove, and \$40,000 to the valley. This, with the usual traveling fund of \$3,000, will enable the Commission to make many permanent betterments upon buildings,

roads, trails, and bridges; to complete the protection of the valley and grove from fire, and to considerably advance the control of the Merced River by proper levee and esplanade structures at its points of most destructive overflow.

FINANCIAL STATEMENTS.

The expenditures under Secretaries Truman and Pixley, for the first half of the biennium, are set forth in the following tabulations:

STATEMENT

Showing condition of appropriation for Traveling Expenses Yosemite Valley Commissioners for the forty-first fiscal year.

Amount appropriated		\$1,500 00	\$1,500 00
June 30, 1890—Balance			
		\$1,500 00	\$1,500 00

STATEMENT

Showing condition of appropriation for Care of Mariposa Big Tree Grove for the forty-first fiscal year.

Amount appropriated			\$2,500 00
Warrant No. 3855—Sept. 27, 1889—Yosemite Valley Commissioners.....	\$263 62		
No. 6970—Nov. 22, 1889—Yosemite Valley Commissioners.....	1,795 81		
No. 9575—Jan. 23, 1890—Yosemite Valley Commissioners.....	123 00		
No. 9643—Jan. 23, 1890—Yosemite Valley Commissioners.....	197 72		
June 30, 1890—Balance	119 85		
		\$2,500 00	\$2,500 00

The unexpended balance of this fund at the end of the fiscal year is supposed by the Commission to be covered back into the Treasury.

STATEMENT

Showing condition of appropriation for Traveling Expenses Yosemite Valley Commissioners for the thirty-eighth fiscal year.

Amount appropriated			\$153 93
Warrant No. 1736—Aug. 19, 1889—Yosemite Valley Commissioners.....	\$147 07		
Balance	6 86		
		\$153 93	\$153 93

This appropriation was made by the last Legislature to meet a deficiency in the appropriation for the thirty-eighth fiscal year.

STATEMENT

Showing condition of Yosemite Valley Fund for the forty-first fiscal year.

July 1, 1889—Balance			\$481 43
July 1, 1889—By payment			162 00
July 17, 1889—By payment			877 60
Sept. 3, 1889—By payment			1,038 85
Oct. 2, 1889—By payment			365 25
Nov. 2, 1889—By payment			151 50
Jan. 6, 1890—By payment			700 00
Feb. 5, 1890—By payment			250 00
June 21, 1890—By payment			600 00
Warrants Nos. 833 to 835—July 29, 1889—Yosemite Valley Commis'rs.....	\$1,202 69		
No. 5113—Oct. 21, 1889—Yosemite Valley Commissioners.....	1,570 33		
No. 9528—Jan. 23, 1890—Yosemite Valley Commissioners.....	21 00		
No. 13107—May 9, 1890—Yosemite Valley Commissioners.....	28 33		
No. 13188—May 13, 1890—Yosemite Valley Commissioners.....	478 80		
June 30, 1890—Balance	1,325 48		
		\$4,626 63	\$4,626 63

This fund consists of moneys received from rents, etc., by the Commissioners and paid into the State Treasury. This fund is subject to the orders of the Commission.

STATEMENT

Showing condition of appropriation for Care of Yosemite Valley for the forty-first fiscal year.

Amount appropriated.....		\$10,000 00
Warrants Nos. 3823 to 3854—Sept. 27, 1889—Yosemite Valley Commis'srs.....	\$1,924 02	
Nos. 3856 to 3873—Sept. 27, 1889—Yosemite Valley Commis'srs.....	1,799 61	
Nos. 5648 to 5678—Nov. 1, 1889—Yosemite Valley Commis'srs.....	1,981 86	
Nos. 6971 to 6991—Nov. 23, 1889—Yosemite Valley Commis'srs.....	1,222 85	
Nos. 8388 to 8401—Dec. 19, 1889—Yosemite Valley Commis'srs.....	1,228 40	
No. 9642—Jan. 23, 1890—Yosemite Valley Commissioners.....	810 38	
No. 11284—Mar. 13, 1890—Yosemite Valley Commissioners.....	365 36	
No. 11653—Mar. 28, 1890—Yosemite Valley Commissioners.....	311 50	
No. 13106—May 9, 1890—Yosemite Valley Commissioners.....	356 02	
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	\$10,000 00	\$10,000 00

The condition of the several funds for the forty-second fiscal year, up to and including the payment of the vouchers for November, 1890, is as follows:

STATEMENT

Showing condition of appropriation for Care of Yosemite Valley for the forty-second fiscal year.

Appropriation.....		\$10,000 00
1890—Aug. 18—Drawn on July vouchers (1 to 22).....	\$1,185 58	
Sept. 27—Drawn on August vouchers (23 to 52).....	3,294 90	
Oct. 29—Drawn on September vouchers (53 to 77).....	2,861 25	
Dec. 2—Drawn on October vouchers (78 to 88).....	746 34	
Dec. 8—Drawn on November vouchers (89 to 100).....	689 59	
Balance.....	1,222 34	
	<hr/>	<hr/>
	\$10,000 00	\$10,000 00

STATEMENT

Showing condition of Yosemite Valley Fund for the forty-second fiscal year.

1890—June 30—Balance.....		\$1,325 48
July 8—By payment.....		496 00
Aug. 9—By payment.....		652 25
Sept. 13—By payment.....		187 69
Oct. 6—By payment.....		61 85
Nov. 11—By payment.....		14 00
1890—July 8—Express charges.....	\$0 50	
July 30—Drawn on May vouchers (167 to 189, inclusive).....	1,267 69	
Aug. 18—Drawn on June vouchers (197 to 214, inclusive).....	978 52	
Balance.....	490 56	
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	\$2,737 27	\$2,737 27

STATEMENT

Showing condition of appropriation for Care of Mariposa Big Tree Grove for forty-second fiscal year.

Balance, forty-first fiscal year.....		\$119 85
Appropriation, forty-second fiscal year.....		2,500 00
1890—Dec. 8—Drawn on voucher (101).....	\$957 36	
Balance.....	1,662 49	
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	\$2,619 85	\$2,619 85

STATEMENT

Showing condition of appropriation for Traveling Expenses Yosemite Valley Commission for forty-second fiscal year.

Appropriation for forty-first fiscal year.....		\$757 00
Appropriation for forty-second fiscal year.....		1,500 00
Balance.....	\$2,257 00	
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	\$2,257 00	\$2,257 00

The distribution of the funds, as shown by the original vouchers on file with the State officers, is set forth still more elaborately in the voluminous and minutely detailed monthly reports of the Guardian of the Valley, on file in the office of the Commission and subject to the inspection of the State officers, members of the Legislature, and the public, their volume forbidding their reproduction here.

APPENDIX.

A *resumé* of previous reports shows that Congress passed an Act authorizing a grant to the State of California of the "Yosemite Valley," and the land embracing the "Mariposa Big Tree Grove," and that said Act was approved on the thirtieth of June, 1864, and is as follows:

SECTION 1. That there shall be, and is hereby granted to the State of California, the "cleft" or "gorge" in the Granite Peak of the Sierra Nevada Mountains, situated in the county of Mariposa, in the State aforesaid, and the headwaters of the Merced River, and known as the Yosemite Valley, with its branches and spurs, in estimated length, fifteen miles, and in average width, one mile back from the main edge of the precipice on each side of the valley; with the stipulation, nevertheless, that the said State shall accept this grant upon the express conditions that the premises shall be held for public use, resort, and recreation, and shall be inalienable for all time; but leases, not extending more than ten years, may be granted for portions of said premises. All incomes derived from leases of privileges to be expended in the preservation and improvement of the property or the roads leading thereto. The boundaries to be established at the cost of said State, by the United States Surveyor-General of California, whose official plat, when affirmed by the Commissioner of the General Land Office, shall constitute the evidence of the locus, extent, and limits of said cleft or gorge; the premises to be managed by the Governor of the State, with eight other Commissioners, to be appointed by the Executive of California, and who shall receive no compensation for their services.

SEC. 2. *And be it further enacted*, that there shall likewise be, and there is hereby granted to the State of California, the tracts embracing what is known as "Mariposa Big Tree Grove;" not to exceed the area of four sections, and to be taken in legal subdivisions of one quarter section each, with the like stipulation as expressed in the first section of this Act, as to the State's acceptance, with like conditions as in the first section of this Act, as to inalienability, yet with the same lease privilege; the income to be expended in preservation, improvement, and protection of the property; the premises to be managed by Commissioners, as stipulated in the first section of this Act, and to be taken in legal subdivision as aforesaid; and the official plat of the United States Surveyor-General, when affirmed by the Commissioner of the General Land Office, to be the evidence of the locus of said Mariposa Big Tree Grove.

[Chapter CLXXXIV of the Statutes at Large, passed at the Thirtieth Congress, session one.]

As soon as possible after the news of the passage of the above Act was received in California, F. F. Low, then Governor, issued the following:

PROCLAMATION.

STATE OF CALIFORNIA, EXECUTIVE DEPARTMENT,
SACRAMENTO, September 28, 1864.

WHEREAS, The United States, by an Act passed at the first session of the thirty-eighth Congress, has granted to this State the territory comprising the "Yosemite Valley and the Mariposa Big Tree Grove," to be held and used for the purposes mentioned in said Act; and whereas, it is also provided in the Act, that the management and control of the tracts of land shall be confided to a Board of Commissioners, to be appointed by the Governor.

Now, therefore, be it known that I, Frederick F. Low, Governor of the State of California, by virtue of the authority in me vested, have appointed Fred. Law Olmsted, Professor J. D. Whitney, William Ashburner, I. W. Raymond, E. S. Holden, Alexander Deering, George W. Coulter, and Galen Clark, said Commissioners, to whom is confided the management of the aforesaid tracts of land. And I hereby warn and command all persons to desist from trespassing or settling upon said territory, and from cutting timber or doing any unlawful acts within the limits of said grant.

All propositions for the improvement of the aforesaid tracts of land, or for leases, should be made to the Commissioners, through Fred. Law Olmsted, Bear Valley, Mariposa County.

In testimony whereof, I have hereunto set my hand, and caused the great seal of the State of California to be affixed, this twenty-eighth day of September, 1864.

[L. S.]

FRED'K F. LOW,
Governor of California.

Attest: B. B. REDDING, Secretary of State.
By F. W. REDDING, Deputy.

The surveys necessary to establish "the locus, extent, and limits" of the Yosemite Valley and the Mariposa Big Tree Grove, as required by the Act of Congress, were made in the autumn of 1864, by order of the Commissioners appointed by the above proclamation, under the direction of James T. Gardner, who was appointed United States Deputy Surveyor for that purpose.

The official plat of this work was forwarded by the Surveyor-General of California to Washington, and accepted by the Commissioner of the General Land Office.

Before, however, the Yosemite Valley and Mariposa Big Tree Grove could become the property of the State, it was necessary that the grant made by Congress should be accepted by the State Legislature. This was done during the session of 1865-6, when the following Act was passed:

An Act to Accept the Grant by the United States Government to the State of California of the Yosemite Valley and Big Tree Grove, and to Organize the Board of Commissioners, and to Fully Empower Them to Carry Out the Objects of the Grant, and Fulfill the Purposes of the Trust.

[Approved April 2, 1866.]

WHEREAS, By an Act of Congress, entitled an Act authorizing a grant to the State of California of the Yosemite Valley, and of the land embracing the Mariposa Big Tree Grove, approved June thirtieth, A. D. eighteen hundred and sixty-four, there was granted to the State of California in the terms of said Act said valley and the lands embracing said grove, upon certain conditions and stipulations therein expressed; now, therefore,

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. The State of California does hereby accept said grant upon the conditions, reservations, and stipulations contained in said Act of Congress.

Sec. 2. The Governor, and the eight other Commissioners, Frederick Law Olmsted, Prof. J. D. Whitney, William Ashburner, I. W. Raymond, E. S. Holden, Alexander Deering, George W. Coulter, and Galen Clark, appointed by him on the twenty-eighth day of September, eighteen hundred and sixty-four, in accordance with the terms of said Act, are hereby constituted a Board to manage said premises, and any vacancy occurring therein from death, removal, or any cause, shall be filled by the appointment of the Governor. They shall be known in law as "The Commissioners to Manage the Yosemite Valley and the Mariposa Big Tree Grove," and by such name they and their successors may sue and be sued, and shall have full power to manage and administer the grant made, and the trust created by said Act of Congress, and shall have full power to make and adopt all rules, regulations, and by-laws for their own government and the government, improvement, and preservation of said premises, not inconsistent with the Constitution of the United States, or of this State, or of said Act making the grant, or of any law of Congress, or of the Legislature. They shall hold their first meeting at the time and place to be specified by the Governor, and thereafter as their own rules shall prescribe, and a majority shall constitute a quorum for the transaction of business. They shall elect a President and Secretary, and any other officers from their number, as their rules may prescribe.

Sec. 3. None of the said Commissioners shall receive any compensation for their services as such. They shall have the power to appoint a Guardian, either of their number or not, of said premises, removable at their pleasure, to perform such duties as they may prescribe, and to receive such compensation as they may fix, not to exceed five hundred dollars per annum.

Sec. 4. The Commissioners shall make a full report of the condition of said premises, and of their acts under this law, and of their expenditures, through the Governor, to the Legislature, at every regular session thereof.

Sec. 5. The State Geologist is hereby authorized to make such further explorations on the said tract, and in the adjoining regions of the Sierra Nevada Mountains, as may be necessary to enable him to prepare a full description and accurate statistical report of the same, and the same shall be published in connection with the reports of the Geological Survey.

Sec. 6. It shall be unlawful for any person willfully to commit any trespass whatever upon said premises, cut down or carry off any wood, underwood, tree, or timber, or girdle or otherwise injure any tree or timber, or deface or injure any natural object, or set fire to any wood or grass upon said premises, or destroy or injure any bridge or structure of any kind, or other improvement that is, or may be, placed thereon. Any person committing either or any of said acts, without the express permission of said Commissioners, through said Guardian, shall be guilty of a misdemeanor, and, on conviction thereof, shall

be punished by fine not exceeding five hundred dollars, or by imprisonment in the county jail not exceeding six months, or by both such fine and imprisonment.

SEC. 7. The sum of two thousand dollars is hereby appropriated for the eighteenth and nineteenth fiscal years, out of any moneys in the treasury not otherwise appropriated, to pay said Guardian, and the incidental expenses of the Commissioners, and to be expended under the supervision of said Commissioners; *provided*, that not more than one half of said sum shall be expended during the eighteenth fiscal year.

SEC. 8. This Act shall take effect immediately.

[Chapter DXXXVI of the Statutes of California, passed at the sixteenth session of the Legislature, 1865-6.]

Sections 3584 to 3586 of the Political Code confirm the appointment of the Commissioners, and reënact all that relates to their powers contained in the above cited Act of the Legislature.

In 1866, Mr. F. L. Olmsted, one of the Commissioners originally appointed by Governor Low, resigned after returning from the East, and Mr. H. W. Cleaveland, of San Francisco, was appointed. Mr. Alexander Deering resigned in 1873, on being elected to the office of District Judge, and Mr. Edgar Mills, of Sacramento, was appointed. In 1875, Mr. George W. Coulter resigned, and was succeeded by Mr. P. D. Wigginton, of Merced, who in his turn resigned after being elected to Congress, and his place in the Board was filled by the appointment of Mr. Thomas P. Madden, of San Francisco. Since then there have been a good many vacancies caused either by deaths, resignations, or expirations of term of office, which need not be further touched upon here.

RULES AND REGULATIONS FOR GOVERNMENT OF YOSEMITE VALLEY AND MARIPOSA BIG TREE GROVE.

I.

No person shall reside or transact business within the Yosemite Valley and Mariposa Big Tree Grant, without written permission from the Commissioners.

II.

No application for residence or privilege to transact business within the Valley or Grove shall be considered if the applicant be in arrears to the Commission. Applicants must be in good standing.

III.

Any person having permission to reside and transact business within the Valley or Grove, who shall transfer or sublet the whole or any part of the premises or business in said permit without the written consent of the Commission, shall, *ipso facto*, forfeit the same.

IV.

The Guardian shall report to the Executive Committee all parties residing or transacting business within the Grant without permission, and shall cause the discontinuance of such residence or business.

V.

No person residing or transacting business within the Grant shall retain in his or her employ any person who is detrimental to good order or morals.

VI.

Upon complaint to the Commission, made by the Guardian, against any person specified in Rule V, the employer of such objectionable person shall be notified of the facts, and the employé must be dismissed.

VII.

Any employer neglecting or refusing to dismiss such objectionable employé, shall thereby forfeit his permission to reside or transact business within the Grant.

VIII.

No person shall be employed as guide who is not of good moral character, and approved by the Guardian.

IX.

The Guardian shall, upon complaint of any tourist or visitor, of the conduct or behavior of a guide, inquire into the cause, and advise the complainant of the result, enforcing Rule V if necessary.

X.

The Guardian is empowered to suspend a guide from his privilege during the investigation of charges preferred against said guide. If the guide be found in fault, he shall be dismissed, in accordance with Rule V.

XI.

The Guardian shall inspect all horses, their trappings, and all vehicles used for hire; and if any such horses, trappings, or vehicles shall by him be deemed unsuitable or unsafe, he shall cause the same to be removed at once from the Valley or Grove.

XII.

Any person offering for hire, or otherwise, any horse, trapping, or vehicle, or refusing or neglecting to remove the same from the grant, after the Guardian shall have condemned the same, shall forfeit his privilege to reside or transact business within the grant.

XIII.

The Guardian shall direct campers to the grounds set apart for their use while within the grant, and shall establish such rules as will contribute to their comfort.

XIV.

No camp fires shall be permitted within the grant of either Valley or Grove, without the express permission of the Guardian.

XV.

The Guardian shall promptly cause the arrest of any person violating Rule XIV, and prosecute the offender to the full extent of the law, under Section 6 of the Act of April 2, 1866, as found in the last division of this book.

XVI.

No trees shall be cut or injured, or any natural object defaced.

XVII.

The discharge of firearms, either in the Valley or Grove, is strictly prohibited.

XVIII.

No horses, cattle, or stock of any kind shall be allowed to run at large within the grant, except under permission given in writing to the owner or owners thereof.

XIX.

Campers and all others, save those holding license from the Commission, are prohibited from hiring their horses, trappings, or vehicles to tourists or visitors within the grant.

XX.

Stages entering the valley shall stop at each hotel in the order of location, that passengers may exercise the right of selection.

XXI.

Rates of charges at hotels, and also for horses, trappings, or vehicles, or for provender, as published by the Commission from time to time, must not be exceeded, under pain of forfeiture of privilege to keep hotel, to conduct the livery business, or to sell provender.

XXII.

The Guardian shall notify the managers of hotels of any action of the Commission forbidding any objectionable person from residing or transacting business in the Valley or Grove.

XXIII.

The Guardian shall, from time to time, enter all tenements, for the purpose of inspecting sanitary conditions, and of examining the property in pursuance of his official duties.

XXIV.

No buildings or improvements of any kind shall be erected, or made upon the grant, without written authority from the Commission.

XXV.

All buildings and improvements of every kind erected, or made upon the grant, belong to the grant, and shall be so recognized and treated.

XXVI.

No person shall drive or ride faster than a walk over any of the bridges.

XXVII.

The Guardian shall exercise general police supervision in the Valley and Grove, and shall forbid and prevent all acts that tend to a breach of the peace or the discomfort of visitors, or the injury or destruction of property.

XXVIII.

All action of the Guardian shall be in response to orders communicated to him by the Executive Committee. He shall make no purchases, nor shall he incur any liability without specific authority. And he must refer all questions of policy, touching the management of the trust, to the Executive Committee for its decision. He must promptly remit all collections to the Secretary and Treasurer, and is specially forbidden to disburse any funds of the Commission, unless directed so to do by the Executive Committee. His vouchers must be full and self-explanatory, and must be taken by him in *triplicates*; one of them to be retained in his office in the Valley, and the other two transmitted to the Secretary and Treasurer. His accounts, covering the month last past, shall be made up and forwarded to the Executive Committee on the first of each month. He shall also transmit to the committee his estimate of material and supplies necessary, and await the approval of the same before purchasing. No standing timber shall be cut without special authority from the Executive Committee.

BY-LAWS OF BOARD OF COMMISSIONERS TO MANAGE THE YOSEMITE VALLEY AND MARIPOSA BIG TREE GROVE.

ARTICLE I.

The principal place of business of the Board shall be in Yosemite Valley, but the Executive Committee shall have an office in the city of San Francisco.

ARTICLE II.

The President of the Board is the Governor of the State.

ARTICLE III.

The other officers of the Commission shall be a Vice-President, and a Secretary, who shall also be the Treasurer, and an Executive Committee of three Commissioners, all of whom shall be elected by ballot at the annual meeting of the Board, and shall hold office for one year.

ARTICLE IV.

It shall be the duty of the President to preside at the meetings of the Board, and to perform such other duties as properly appertain, by usage, to the office of President.

ARTICLE V.

In case of the absence of the President, or of his inability to serve, the Vice-President shall perform his duties.

ARTICLE VI.

SECTION 1. The Secretary shall keep a record of the proceedings of the Commission in proper books, to be provided for that purpose; shall conduct the correspondence of the Commission, making letter-press copies of all official letters written by him, and preserving and properly filing all communications which he may receive as Secretary of the Commission, or which may appertain to its business, and shall exhibit the same, and give an account of his correspondence whenever required so to do either by the Board of Commissioners or by the Executive Committee; and during business hours the same shall be open to examination by any individual Commissioner. He shall, also, keep a record in the minute book, of all votes obtained by correspondence, and votes given by Commissioners in that way shall have the same effect as though cast in general meeting. He shall, also, officially attend all meetings of the Executive Committee, performing such clerical duties as may be required of him.

SEC. 2. As Secretary and Treasurer, it shall be his duty to keep a record of the financial transactions of the Board, covering a circumstantial account of all sources of revenue, including appropriations made by the State of California, and of disbursements from the same.

It shall be his duty to receive all moneys on behalf of the Commission, making proper record of each several item, and to transmit all moneys received for account of rents, privileges, or any other source, to the State Treasury, in accordance with law.

He shall make up vouchers, from the monthly reports of the Guardian, of his liabilities for wages of laborers employed in Yosemite Valley and in the Mariposa Big Tree Grove, and, also, for supplies and material purchased by him from month to month; and upon said vouchers being approved by the Executive Committee, to transmit the same to the State Controller for payment. Said vouchers shall be made payable to the Secretary and Treasurer of the Board of Commissioners, the better to enable him to keep a correct account of all disbursements; and he shall, upon receipt of the Controller's warrant, immediately apply the proceeds of said warrant to the payment of the various sums to the several claimants covered by such warrant.

His account of moneys received and disbursed shall be explicit and full; and, whenever legally called upon to do so, shall deliver up all moneys, books, papers, and other property of the Commission in his hands, to his successor in office, or to such other person as may be designated by the Board to receive the same.

He shall obey the orders of the Board, rendering such services as may be required of him relating to the treasury, and shall at all times during business hours, open his books and exhibit his papers to any individual Commissioner upon request.

ARTICLE VII.

SECTION 1. The Executive Committee shall, in addition to the discharge of the usual duties of such a body, also act as a Committee on Finance, having the oversight and control, subordinate to any special orders of the Board of Commissioners, of all sources of revenue and of expenditures of money. It shall approve all bills before they are paid; and no payments shall be made by the Treasurer, except on vouchers countersigned by at least two members of the Executive Committee.

SEC. 2. The Executive Committee, as nearly as possible carrying out the wishes of the Board, shall issue all instructions to the Guardian; and it shall receive applications for leases, and for rights and privileges, with power to act on the same, subject to review by the Board at its first meeting.

SEC. 3. Whenever, in the judgment of the Executive Committee, any question of special gravity arises, it may, through the Secretary, submit such question to the members of the Board for their votes severally thereon; and the result of action so had shall have the force of a vote taken at a general meeting. And such action is compulsory upon the Executive Committee, when request therefor in writing is made by any member of the Board of Commissioners.

SEC. 4. The Executive Committee, when unanimously agreed as to the necessity or propriety of such action, may call a special meeting of the Commissioners, to be held in the Yosemite Valley, or in Sacramento or San Francisco; and it shall be its duty to make such call, upon written request of three members of the Board not of the Executive Committee.

SEC. 5. It shall be the duty of the Executive Committee to make a

full report at each annual meeting of the Board, of all business transacted by it during the past year; and biennially, during the month of November, to prepare a report, which, when approved by the Board of Commissioners, shall be transmitted to the Legislature through the Governor; said report to cover an account of the administration of its trust by the Board, for a period of two years, showing in detail the manner in which the revenues of the Valley and Grove, and the appropriations of the State, have been expended, together with the present conditions of the trust and its needs.

SEC. 6. The Executive Committee is empowered to issue residence and business permits that shall entitle the holder thereof to reside and transact business in the Valley and Grove. The committee may adopt the form of such permits.

Permits shall not be issued for a longer term than one year, and may be issued from year to year or from month to month. They shall recite the name and business of the holder, and shall specify the tenement or locality assigned for occupancy.

Permits shall be revoked upon a violation of any of the rules of the Commission, or at any time, in the discretion of the Executive Committee.

Permits shall be issued only to persons of good moral character, upon the unanimous consent of the Executive Committee, and signed by both the Chairman and the Secretary of the same.

SEC. 7. The Executive Committee shall establish the rates to be charged by hotels; the rates for carriage and horse hire; the rates for the sale of provender; and, generally, shall regulate the prices to be charged by all persons transacting business in the Valley and Grove.

SEC. 8. A wise discretion is reposed in the Executive Committee, unanimously expressed, as to the rigid enforcement of any or all rules and regulations governing the Valley and Grove.

ARTICLE VIII.

In case of a vacancy by death, resignation, removal from the State, or by any other inability to serve, on the part of the Vice-President, Secretary and Treasurer, or any member of the Executive Committee, the President shall appoint some one to the place.

ARTICLE IX.

It shall be the duty of the Executive Committee to prepare and present an order of business for guidance of the Board at each meeting.

YOSEMITE VALLEY AND MARIPOSA BIG TREE GROVE.

This trust, created by Act of Congress on the thirtieth day of June, 1864, has since been managed by the following Commissioners, the Presidents of the Board successively heading the list:

PRESIDENTS:

GOVERNOR F. F. LOW.	GOVERNOR WILLIAM IRWIN.
GOVERNOR H. H. HAIGHT.	GOVERNOR GEORGE C. PERKINS.
GOVERNOR NEWTON BOOTH.	GOVERNOR GEORGE STONEMAN.
GOVERNOR ROMUALDO PACHECO.	GOVERNOR WASHINGTON BARTLETT.
	GOVERNOR R. W. WATERMAN.

COMMISSIONERS:

FRED. LAW OLMSTED.	WM. H. MILLS.
J. D. WHITNEY.	I. W. TABER.
WILLIAM ASHBURNER.	M. C. BRIGGS.
I. W. RAYMOND.	J. P. JACKSON.
E. S. HOLDEN.	GEORGE S. LADD.
ALEXANDER DEERING.	A. J. MEANY.
GEORGE W. COULTER.	JAMES L. SPERRY.
GALEN CLARK.	CHARLES L. WELLER.
HENRY W. CLEAVELAND.	J. M. GRIFFITH.
WM. C. PRIEST.	J. H. O'BRIEN.
EDGAR MILLS.	JONATHAN MENTZER.
P. D. WIGGINTON.	E. W. CHAPMAN.
THOMAS P. MADDEN.	WILLIAM B. MAY.
F. M. PIXLEY.	GEORGE G. GOUCHER.
JNO. P. IRISH.	BEN. C. TRUMAN.
JOS. G. EASTLAND.	M. H. HECHT.

FIFTH ANNUAL REPORT

OF THE

BOARD OF DENTAL EXAMINERS

OF THE

STATE OF CALIFORNIA.



SACRAMENTO:

STATE OFFICE : : : J. D. YOUNG, SUPT. STATE PRINTING.

1889.

REPORT.

To his Excellency R. W. WATERMAN, Governor of the State of California:

SIR: The Board of Dental Examiners of the State of California submit the following as their fifth annual report of its proceedings, together with an account of all moneys received and disbursed, in compliance with the requirements of that certain Act of the Legislature, entitled "An Act to insure the better education of practitioners of dental surgery, and to regulate the practice of dentistry in the State of California," approved March 12, 1885, a copy of which is hereunto annexed.

Since issuing the last report, the Board has held two meetings.

On April 24, 1889, the Governor, R. W. Waterman, appointed on the Board E. L. Townsend, of Los Angeles, vice H. J. Plomteaux, term expired.

At the meeting held August 20, 1889, seven candidates appeared for examination, all of whom successfully passed. At this meeting the election of officers was held.

Dr. J. J. Birge, of San Francisco, was elected President and Dr. W. F. Griswold, of San Francisco, was elected Secretary.

The following are the present officers and members of the Board:

Dr. J. J. Birge, President	San Francisco.
W. J. Younger, M.D.	San Francisco.
S. E. Knowles, M.D., D.D.S.	San Francisco.
J. S. Crawford	Los Angeles.
E. L. Townsend, D.D.S.	Los Angeles.
Thos. Morffew, D.D.S.	San Francisco.
W. F. Griswold, Secretary	San Francisco.

During the past year two persons have been registered, twelve diplomas have been indorsed, and seven candidates have received certificates on examination.

A list of all whose names have been registered, and of all whose diplomas have been indorsed as satisfactory to the Board, and of all who have received certificates by examination of the Board, is hereto annexed.

The following is an account of all money received and disbursed by the Board since the last report:

RECEIPTS.

For registration, \$1 for each—four persons	\$4 00
Received for indorsement of diploma, \$10 for each applicant—twelve applicants	120 00
From examination, \$10 for each applicant—eleven applicants	110 00
Balance on hand at last report	240 20
Total	\$480 20

DISBURSEMENTS.

Printing	\$67 50
Stationery	17 75
Traveling expenses of members	68 00
Necessary clerical expenses	35 00
Rent of hall, one year	105 00
Incidentals	17 55
Total	\$310 80
Balance in hand of Secretary	\$169 40

All persons who are now practicing dentistry in this State, and who have not received a certificate from this Board in pursuance of the Act mentioned, are violating the law and are subject to arrest and a fine of \$50 to \$200, or imprisonment for six months in the county jail for each and every offense. It will be necessary for all persons who may hereafter desire to engage in the practice of dentistry in this State to secure a certificate from this Board, upon a diploma from a reputable dental college, or after examination in dental surgery, as required by the Act of March 12, 1885. In examining applicants for certificates to practice dentistry, the Board will examine in the branches of anatomy, physiology, pathology, histology, hygiene, materia medica, therapeutics, chemistry, metallurgy, operative dentistry, prosthetic dentistry, and dental jurisprudence. All examinations must be in writing, and the applicant must receive a general average of 75 per cent to entitle him to a certificate. Clinical operations in operative or prosthetic dentistry shall be optional with the Board of Examiners. The regular meeting for the examination of candidates will be held on July 10, 1890.

It seems to be popularly supposed that the Board of Examiners shall prosecute all persons violating the law. This is not the case; but it is the duty of every dentist to see that the law is enforced, and it is the duty of the prosecuting attorney of each county to prosecute every person violating the law, on the receipt of information of such violation and the necessary evidence to establish the fact.

STEP TO BE TAKEN TO PROSECUTE.

Positive evidence of the violation of the law should first be obtained. This, with a formal information and a list of witnesses, should be handed to the prosecuting attorney, who will then be in duty bound to prosecute the case.

The attention of licensees is called to the fact that they are required to have their licenses recorded with the County Clerk of the county in which such persons may reside; it requires no action of the Board to work a forfeiture of the license under Section 8 of the law: the fact of failure to have it recorded, within six months from date of issue, subjects licensee to the penalty for neglect.

We recommend that Section 6 of the Dental Law be amended, so that the informer of violations of the Act, "in cases of conviction," shall receive one half of the fine imposed.

The Board is more than ever impressed with the importance of legislation of this character, and have greater confidence that the judicious administration of the law under which they act must redound to the benefit of the community.

All of which is respectfully submitted. Board of Dental Examiners of the State of California.

J. J. BIRGE,
President.

W. F. GRISWOLD,
Secretary.

OCTOBER 15, 1889.

AN ACT

To Insure the Better Education of Practitioners of Dental Surgery, and to Regulate the Practice of Dentistry in the State of California.

[Approved March 12, 1885.]

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. It shall be unlawful for any person, who is not at the time of the passage of this Act engaged in the practice of dentistry in this State, to commence such practice unless he or she shall have obtained a certificate, as hereinafter provided.

SEC. 2. A Board of Examiners, to consist of seven practicing dentists, is hereby created, whose duty it shall be to carry out the purposes and enforce the provisions of this Act. The members of said Board shall be appointed by the Governor from the dental profession of the State at large. The term for which the members of said Board shall hold their office shall be four years, except that two of the members of the Board first to be appointed under this Act shall hold their office for the term of one year, two for the term of two years, two for the term of three years, and one for the term of four years, respectively, and until their successors shall be duly appointed and qualified. In case of a vacancy occurring in said Board, such vacancy shall be filled by the Governor, in conformity with this section.

SEC. 3. Said Board shall choose one of its members President, and one the Secretary thereof, and it shall meet at least once in each year, and as much oftener and at such times and places as it may deem necessary. A majority of said Board shall, at all times, constitute a quorum, and the proceedings thereof shall, at all reasonable times, be open to public inspection.

SEC. 4. Within six months from the time this Act takes effect, it shall be the duty of every person who is now engaged in the practice of dentistry in this State to cause his or her name and residence, or place of business, to be registered with said Board of Examiners, who shall keep a book for that purpose. The statement of every such person shall be verified under oath before a Notary Public or Justice of the Peace, in such manner as may be prescribed by the Board of Examiners. Every person who shall so register with said Board as a practitioner of dentistry, shall receive a certificate to that effect, and may continue practice as such without incurring any of the liabilities or penalties provided in this Act, and shall pay to the Board of Examiners for each registration the fee of one dollar. It shall be the duty of the Board of Examiners to forward to the County Clerk of each county in the State a certified list of the names of all persons residing in his county who have registered in accordance with the provisions of this Act, and it shall be the duty of all County Clerks to register such names in a book to be kept for that purpose.

SEC. 5. Any and all persons, who shall so desire, may appear before the Board at any of its regular meetings and be examined with reference to their knowledge and skill in dental surgery; and if the examination of any such person or persons shall prove satisfactory to said Board, the Board of Examiners shall issue to such persons as they shall find to possess the requisite qualifications a certificate to that effect, in accordance with the provisions of this Act. Said Board shall also indorse as satisfactory diplomas from any reputable dental college, when satisfied of the character of such institution, upon the holder furnishing evidence satisfactory to the Board of his or her right to the same, and shall issue certificates to that effect within ten days thereafter. All certificates issued by said Board shall be signed by its officers, and such certificates shall be prima facie evidence of the right of the holder to practice dentistry in the State of California.

SEC. 6. Any person who shall violate any of the provisions of this Act shall be deemed guilty of a misdemeanor, and, upon conviction, may be fined not less than fifty dollars nor more than two hundred dollars, or confined six months in the county jail, for each and every offense. All fines recovered under this Act shall be paid into the Common School Fund of the county in which such conviction takes place.

SEC. 7. In order to provide the means for carrying out and maintaining the provisions of this Act, the said Board of Examiners shall charge each person applying to or appearing before them for examination for a certificate of qualifications, a fee of ten dollars, which fee shall be in no case returned; and out of the funds coming into the possession of the Board from the fees so charged, and penalties received under the provisions of this Act, all legitimate and necessary expenses incurred in attending the meetings of said Board shall be paid; and no part of the expenses of the Board shall ever be paid out of the State Treasury. All moneys received in excess of expenses above provided for, shall be held by the Secretary of said Board, as a special fund for meeting the expenses of said Board, and carrying out the provisions of this Act, he giving such bonds as the Board shall from time to time direct; and said Board shall make an annual report of its proceedings to the Governor by December first of each year, together with an account of all moneys received and disbursed by them, pursuant to this Act.

SEC. 8. Any person who shall receive a certificate from said Board to practice dentistry, shall cause his or her certificate to be registered with the County Clerk of the county in which such person may reside, and the County Clerk shall charge for registering such certificates a fee of one dollar. Any failure, neglect, or refusal on the part of any person

holding such certificate to register the same with the County Clerk as above directed, for a period of six months, shall work a forfeiture of the certificate, and no certificate, when once forfeited, shall be restored, except upon the payment to said Board of twenty-five dollars, as a penalty of such neglect, failure, or refusal.

SEC. 9. Any person who shall knowingly or falsely claim, or pretend to have or hold a certificate of license, diploma, or degree, granted by any society organized under and pursuant to the provisions of this Act, or who shall falsely, and with intent to deceive the public, claim or pretend to be a graduate from any incorporated dental college, shall be deemed guilty of a misdemeanor, and shall be liable to the same penalty as provided in section six.

SEC. 10. Nothing in this Act shall be so construed as to prohibit any practicing physician from extracting teeth.

SEC. 11. This Act shall take effect immediately.

OFFICIAL REGISTER

OF DENTISTS HOLDING CERTIFICATES FROM THE BOARD OF DENTAL EXAMINERS IN THE STATE OF CALIFORNIA.

ALAMEDA COUNTY.

Beales, C. H.	Oakland.
Bills, Albert V. (diploma indorsed)	Oakland.
Belfills, E. K.	Oakland.
Burnett, E. K.	Oakland.
Brooks, W. E.	Oakland.
Bishop, M. E.	Alameda.
Bates, C. P.	Berkeley.
Barradas, F. C.	San Leandro.
Bernard, Geo.* (diploma indorsed)	Livermore.
Cole, R. E.	Oakland.
Craig, W. H.	Oakland.
Carpenter, O.	Oakland.
Cool, R. H.	Oakland.
Cornwall, A.	Oakland.
Cool, G. W.	Oakland.
Dauziger, G. A.	Oakland.
Dimmick, J.	Oakland.
Dunn, R. K.	Oakland.
Edwards, B. F.	Oakland.
Gilman, S. M.	Oakland.
Garcia, M. J.	San Leandro.
Halsey, I. S.	Oakland.
Hall, T. W.	Oakland.
Hutton, J. A. D.	Berkeley.
Hempstead, J. E.	Oakland.
Hackett, S. A.	Oakland.
Knowles, S. E.	Alameda.
Knowles, Wm. A.	Alameda.
Kreichbaum, G. H.	Oakland.
Koehler, F.	Sunol.
Kenworthy, L.	San Leandro.
Lane, C. S.	Oakland.
Lee, E. M.*	East Oakland.
Luce, G. J.	Oakland.
Lane, Frederic James (diploma indorsed)	Oakland.
Meek, R. W.	Oakland.
Morries, A. H.	Oakland.
Morris, T. H.	Oakland.
Merriman, A. F.	Oakland.
Merriman, A. F., Jr.	Oakland.
Moulton, H. G. (examined by Board)	Oakland.
Petton, L. D.	Oakland.
Rodolph, C. F.	Oakland.
Rabe, J.	Oakland.
Stoakes, F. C.	San Leandro.
Simmons, W. H.	Oakland.
Schmidt, G. L.	Oakland.
Schumer, A. C.	Oakland.
Saxe, Frederick J. (diploma indorsed)	Oakland.
Savage, S. L.	Livermore.
Tate, S. P., Jr.	Oakland.
Titcomb, C. B.	Oakland.
Timerman, E. C. (diploma indorsed)	Oakland.
Wilson, O. F.	Oakland.
Waltz, G. W.	Oakland.
Walker, Chas. Henry (examined by Board)	Oakland.

AMADOR COUNTY.

Gray, John	Ione.
Gabbs, E. J.	Sutter Creek.
LaDue, W. K.	Plymouth.

*Deceased.

BUTTE COUNTY.

Crum, T. A.	Chico.
McFadgen, A.	Chico.
Norman, George H.	Gridley.
Read, W. S.	Oroville.
Stewart, Robert (diploma indorsed)	Chico.
Vanankin, J. R.	Chico.
Ward, S. T.	Chico.
Wasley, D. W.	Chico.

COLUSA COUNTY.

Ciley, J. L.	Little Stony.
Pirkey, M.	Willows.
Smith, Frank Z.	Colusa.
Washer, W. A.	Willows.

CONTRA COSTA COUNTY.

McCabe, Ed.	Brentwood.
Moore, J. S.	Martinez.
Moore, J. S., Jr.	Martinez.

CALAVERAS COUNTY.

Oviatt, S. M.	San Andreas.
Smith, C. D.	Angels Camp.
Turner, Peter T.	Murphys.

EL DORADO COUNTY.

Stone, W. W.	Placerville.
Tyson, Charles	Placerville.
Walk, Charles L.	Placerville.

FRESNO COUNTY.

Cooper, J. C.	Fresno.
Doyle, B. W.	Fresno.
Earl, George W. (diploma indorsed)	Selma.
Hunsaker, A. L.	Fresno.
Hendricks, H. T.	Kingsburg.
Marcoux, Henry Frederick (diploma indorsed)	Fresno.
Prather, W. J.	Fresno.

HUMBOLDT COUNTY.

Beverton, D. H.	Eureka.
Ingersall, A. E.	Eureka.
Johnston, Robert (diploma indorsed)	Ferndale.
O'Connor, D. L.	Blocksburg.
Ray, C. B.	Arcata.
Thompson, R. P.	Ferndale.
Weldon, J. A.	Eureka.
Weldon, E. J.	Eureka.

KERN COUNTY.

Bonham, J. F.	Bakersfield.
Badgley, A. (examined by Board)	Bakersfield.

LOS ANGELES COUNTY.

Adams, S. H.	Los Angeles.
Bird, W. R.	Los Angeles.
Baldwin, C. V.	Los Angeles.
Burgess, R. F.	Santa Ana.
Bourne, Robert R. (diploma indorsed)	Los Angeles.
Cunningham, R. G.	Los Angeles.
Crawford, J. S.	Los Angeles.
Case, Isaac M. (diploma indorsed)	Pomona.
Carroll, H. H. (diploma indorsed)	Los Angeles.
Dunn, J. H.	Pomona.
Deffenbacher, D. S. (examined by Board)	Los Angeles.
French, L. W.	Los Angeles.
Füelgraff, Alma E. (diploma indorsed)	Los Angeles.

Harlan, C. N.*	Los Angeles.
Hubbell, A. B.	Los Angeles.
Hollingsworth, W. W.	Los Angeles.
Hollingsworth, J. W.	Los Angeles.
Hays, A. P. (diploma indorsed)	Los Angeles.
Hurt, J. M. (examined by Board)	Pomona.
Janes, R. K.	Pasadena.
Knepper, G. (examined by Board)	Los Angeles.
Lowder, W. D. (examined by Board)	Santa Monica.
Masser, W. H.	Los Angeles.
McCoy, John C.	Orange.
Millard, G. A.	Compton.
Morris, R. W. (diploma indorsed)	Los Angeles.
Menges, M. A. (diploma indorsed)	Santa Ana.
Townsend, E. L. (diploma indorsed)	Los Angeles.
Nichols, E. A. (diploma indorsed)	Pasadena.
Palmer, Frank M.	Los Angeles.
Parker, C. H. (examined by Board)	Los Angeles.
Purnell, Geo. E. (diploma indorsed)	Orange.
Stephens, Frank E.	Los Angeles.
Stephens, C.	Los Angeles.
Spinks, M. E.	Los Angeles.
Smith, Uriel	Los Angeles.
Shoemaker, R. H.	San Gabriel.
Small, H. E.	Los Angeles.
Swift, Theodore E. (diploma indorsed)	Los Angeles.
Tolhurst, S. H.	Los Angeles.
Tolhurst, G. W.	Los Angeles.
Todd, Baxter	Los Angeles.
Todd, Robert A. (diploma indorsed)	Los Angeles.
Townsend, Jesse R. (diploma indorsed)	Pasadena.
Vanderlip, John F.	Santa Ana.
Vanderlip, Geo. G.	Santa Ana.
Von Bonhurst, C. G.	Pomona.
White, J. M.	Los Angeles.
Wells, L. W.	Los Angeles.
Wilder, D. R.	Los Angeles.
Young, John E.	Santa Ana.

LAKE COUNTY.

Gilstrap, J. M.	Kelseyville.
Hutchins, J. M.	Lakeport.
Redmond, J. J.	Middletown.

LASSEN COUNTY.

Leonard, J. G.	Susanville.
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MARIN COUNTY.

Thomas, H. B.	San Rafael.
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MODOC COUNTY.

Camicia, L. S.	Lookout.
Epperson, J. H.	Alturas.
Taylor, J. M.	Alturas.

MENDOCINO COUNTY.

Card, Ira D.	Ukiah.
Fare, John	Westport.
Higgins, C. K.	Fort Bragg.
Hoffman, M.	Ukiah.
Holmes, C. A.	Mendocino City.
Hogshead, W. H.	Ukiah.
Mitchell, Hiram H.	Ukiah.
Mitchell, Marting N.	Ukiah.
McCowen, G.	Ukiah.
Willsey, T. F.	Covelo.

MERCED COUNTY.

Prather, W. R.	Merced.
Wassman, Max.	Merced.

* Deceased.

MONTEREY COUNTY.

Barden, W. N.	Salinas.
Lemon, George B.	Salinas.

NAPA COUNTY.

Davis, C. E.	St. Helena.
Farman, C. H.	Napa.
Hackett, F. M.	Napa.
Key, J. N.	Calistoga.
Porter, E. M.	Napa.
Porter, S. P.	Napa.
Root, W. A.	St. Helena.
Sabin, C. R.	St. Helena.

NEVADA COUNTY.

Carr, G. B.	Grass Valley.
Chapman, A.	Nevada City.
Chapman, Mrs. N. E.	Nevada City.
Eastman, W. W.	Nevada City.
Hays, Irwin W.	Grass Valley.
Harris, S. M.	Grass Valley.
Harris, M. P. (diploma indorsed)	Grass Valley.
Lancaster, C. E.	North San Juan.
Martin, S. D.	Nevada City.
McIntyre, T. W.	Nevada City.
Pennington, A. R.	Nevada City.
Porter, J. P.	Truckee.
Robinson, F. A.	Nevada City.
Relby, J. W.	Grass Valley.
Ward, S. T.*	Nevada City.

PLUMAS COUNTY.

Cate, David B. (diploma indorsed)	Quincy.
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PLACER COUNTY.

Hitchcock, J. W. (examined by Board)	Auburn.
Hawver, J. C.	Auburn.
Newson, G. W. (examined by Board)	Auburn.
Rea, John	Lincoln.
Smith, J. F.	Forest Hill.
Wilson, M. W.	Dutch Flat.
Ward, J. N. (examined by Board)	Newcastle.

STANISLAUS COUNTY.

Drullard, T. W.	Modesto.
Moad, V. R.	Modesto.
Preshaw, R. G.	Oakdale.

SACRAMENTO COUNTY.

Bates, B. F.	Folsom.
Gardner, Ed.	Sacramento.
Horner, J. Van C.	Sacramento.
Light, W. W.	Sacramento.
Milliken, Chas. T. (diploma indorsed)	Sacramento.
Pierson, H. H.	Sacramento.
Reid, T. B.	Sacramento.
Shaw, I. G.	Sacramento.
Shields, F. M.	Sacramento.
Stephenson, C. H.	Sacramento.
Southworth, S. S.	Sacramento.
Southworth, E. L. (diploma indorsed)	Sacramento.
Stoll, B. F.	Sacramento.
Tebbets, Frank F.	Sacramento.
Wood, Wm.	Sacramento.

SISKIYOU COUNTY.*

Hearn, F. G.	Yreka.
Lorrison, Chas. A.	Yreka.
Remington, C. L. (diploma indorsed)	Yreka.
Millbery, Arthur H.	Jordan.

* Deceased.

SHASTA COUNTY.

Gleaves, A. D.	Anderson.
Hartman, W. P.	Shasta City.
Le Barn, W. H.	Shasta City.
Manchester, M. R.	Redding.
Tope, John H.	Redding.

SAN DIEGO COUNTY.

Barnes, F. J.	San Diego.
Care, D.	San Diego.
Coomes, F. E.	San Diego.
Cogswell, Thos. (diploma indorsed)	El Cajon.
Gould, H. W.	San Diego.
Gildea, Bernard M. (diploma indorsed)	San Diego.
Goodearle, J. H. (diploma indorsed)	Elsinore.
Glidden, Miles D. (diploma indorsed)	National City.
Harbison, H. R. (diploma indorsed)	San Diego.
Hurd, Edgar L. (diploma indorsed)	San Diego.
Leonard, C. N. (diploma indorsed)	National City.
Matthews, E. S. (diploma indorsed)	San Diego.
Merrill, Alfred P. (diploma indorsed)	San Diego.
Philips, R. F.	San Diego.
Parker, D. G. (diploma indorsed)	West Fall Brook.
Price, J. T. (diploma indorsed)	San Jacinto.
Rainey, T. H. (examined by Board)	San Jacinto.
Wasson, John B. (diploma indorsed)	San Diego.

SAN BERNARDINO COUNTY.

Bedford, L. N. (diploma indorsed)	San Bernardino.
Bogart, S. C.	San Bernardino.
Musselman, S.	Cucamonga.
Packard, Chas. W.	Riverside.
Parker, Francis Marion (diploma indorsed)	Riverside.
Ross, Chas. G. (diploma indorsed)	Riverside.
Sylvester, C. W.	Riverside.
Tremper, Robert H. (diploma indorsed)	Ontario.
Whitlock, Alma	San Bernardino.
Westover, G. C.	Riverside.

SANTA BARBARA COUNTY.

Doulton, G. H.	Santa Barbara.
Dimoch, H. C.	Lompoc.
Edmonds, J. H. (diploma indorsed)	Santa Barbara.
Lee, D. B.	Santa Barbara.
Livermore, Geo. W.	Santa Barbara.
Moore, H. W. (diploma indorsed)	Santa Barbara.
Shrewsbury, N.	Santa Barbara.
Stauffer, H. W.	Santa Barbara.
Simpson, G. W. (examined by Board)	Santa Barbara.
Van Winckel, H. M.	Santa Barbara.
Viall, George (diploma indorsed)	Santa Barbara.
Yates, Lorenzo G.	Santa Barbara.

SAN MATEO COUNTY.

Decker, John H.	San Mateo.
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SANTA CLARA COUNTY.

Argall, F.	San José.
Barker, Albert M.	San José.
Brigham, K. A.	Gilroy.
Bonham, C. A.	Santa Clara.
DeCrow, Warren	San José.
Finnegan, L.	San José.
Fleming, C. K.	San José.
Fisher, Mrs. Minnie	San José.
Gallup, Thomas E.	Santa Clara.
Gaston, W. A.	San José.
Gaston, A. A. (examined by Board)	San José.
Gothard, J. T.	Los Gatos.
Hooker, A. O.	San José.
Hall, E. C.	San José.

Holmes, Stephen	San José.
King, J. F.	San José.
Klein, N.	San José.
Knapp, A. R.	San José.
Kingsbury, Wm. B.	Santa Clara.
Ledyard, F. R.	San José.
McGraw, D. F. (examined by Board)	San José.
Nevius, Geo. F. (diploma indorsed)	San José.
Rogers, E. P.	Gilroy.
Rhodes, S. R.	San José.
Rogers, F. S.	Gilroy.
Sprake, W. T.	San José.
Sparr, C. R.*	San José.
Whipple, T. S.	San José.

SANTA CRUZ COUNTY.

Bliss, Frank W.	Santa Cruz.
Bliss, Charles L.	Santa Cruz.
Butterfield, C. L.	Watsonville.
Gordon, Oscar L.	Santa Cruz.
Kirkpatrick, H. C.	Santa Cruz.
Lundy, E. A.	Santa Cruz.
Libbey, J. L.	Watsonville.
Lewis, Walter (examined by Board)	Santa Cruz.
Parker, James P. (diploma indorsed)	Santa Cruz.
Swain, H. P.	Watsonville.
Stickel, John L. (diploma indorsed)	Watsonville.

SAN BENITO COUNTY.

Cooper, Martin S.	Hollister.
Hendricks, John D.	Hollister.
Rubell, W. H.	Bitter Water.

SAN JOAQUIN COUNTY.

Burton, Frank	Stockton.
Davenport, A. C.	Stockton.
Fickett, S. H.	Stockton.
Goodell, L. E.*	Stockton.
Hawn, W. D.*	Lodi.
Henderson, W. R.	Stockton.
Henderson, R. W.	Stockton.
Haines, N. J.	Stockton.
Meseroll, J. M.	Stockton.
Parsons, M. W.	Stockton.
Wallace, W. G.	Stockton.

SOLANO COUNTY.

Harding, W. C.	Suisun.
Moore, W. A.	Benicia.
Pendleton, B. F.	Vallejo.
Shaw, John F.	Vallejo.
Upchurch, A. B.	Vacaville.
Upham, F. F.	Dixon.
Voories, George L.	Vallejo.
Wyatt, M. O.	Dixon.
Stanton, J. C.	Rio Vista.

SIERRA COUNTY.

Chapman, S. A.	Sierra City.
Douglas, G.	Downieville.
Gardiner, Thomas (diploma indorsed)	Downieville.

SAN LUIS OBISPO.

Brown, W. G.	San Luis Obispo.
Garrison, D. M.	San Luis Obispo.
Nelson, W. H.	San Luis Obispo.
Richey, William S. (diploma indorsed)	San Luis Obispo.

*Deceased.

SAN FRANCISCO COUNTY.

Adams, Q. L.	San Francisco.
Austin, H.	San Francisco.
Baynes, H. F. (diploma indorsed)	San Francisco.
Boyd, C. W.	San Francisco.
Boulton, Thomas	San Francisco.
Brewer, B. B.	San Francisco.
Beers, Barrett	San Francisco.
Birge, J. J.	San Francisco.
Blankman, Wm.	San Francisco.
Bunnell, E. F.	San Francisco.
Burns, O. B.	San Francisco.
Braisdell, John H.	San Francisco.
Burch, Maria A.*	San Francisco.
Brown, A. V.	San Francisco.
Bush, Louis	San Francisco.
Bush, Charles G. (diploma indorsed)	San Francisco.
Blake, A. E.	San Francisco.
Blondin, Arthur	San Francisco.
Blake, Charles E.	San Francisco.
Bliss, F. A.	San Francisco.
Blood, J. N.	San Francisco.
Bloch, C.	San Francisco.
Bettis, Harry L.	San Francisco.
Boxton, C.	San Francisco.
Botsford, George (diploma indorsed)	San Francisco.
Brewer, F. A.	San Francisco.
Brewer, L. J.	San Francisco.
Brown, W.	San Francisco.
Bryant, Wm. A. (diploma indorsed)	San Francisco.
Brookes, Frank A. (examined by Board)	San Francisco.
Boys, Henry S. (examined by Board)	San Francisco.
Chalfant, S. P. (diploma indorsed)	San Francisco.
Caranza, V. A.	San Francisco.
Case, E. G. (examined by Board)	San Francisco.
Clark, Franklin L.	San Francisco.
Cogswell, James L.	San Francisco.
Croome, William	San Francisco.
Case, Chas. E.	San Francisco.
Clarke, N. H.	San Francisco.
Cranz, Louis F.	San Francisco.
Conwell, C. C.	San Francisco.
Cochrane, E. O.	San Francisco.
Cummings, J. E.	San Francisco.
Crossett, E. T.	San Francisco.
Craigie, Henry	San Francisco.
Cane, Alfred	San Francisco.
Conradt, J. N.	San Francisco.
Coulson, N. T. (diploma indorsed)	San Francisco.
Cahill, S. D.	San Francisco.
Crossett, Truman	San Francisco.
Currah, J. M.	San Francisco.
Card, Wm. H.	San Francisco.
Chase, Maurice	San Francisco.
Christopher, T.	San Francisco.
Cutlar, R.	San Francisco.
Cool, W. P.	San Francisco.
Casserly, John P.	San Francisco.
Case, George A.	San Francisco.
Dennis, S. W.	San Francisco.
Dentlar, Ed. F.	San Francisco.
Duecker, Wm. E.	San Francisco.
Decker, Charles W.	San Francisco.
Duckett, C. S.	San Francisco.
Drucker, Geo. J.	San Francisco.
Dunbar, L. L.	San Francisco.
Davis, Henry C.	San Francisco.
Dyer, J. J.	San Francisco.
Dutch, Wm.*	San Francisco.
Dean, G. S.	San Francisco.
Dempster, James	San Francisco.
Dean, C. O.	San Francisco.
Davidson, Robert (examined by Board)	San Francisco.
Dunn, Martin (diploma indorsed)	San Francisco.

* Deceased.

Esterle, Albert M. (diploma indorsed).....	San Francisco.
Emerson, Ed. W.....	San Francisco.
Edwards, James W.....	San Francisco.
Eisen, Ed. J.....	San Francisco.
Fitzpatrick, W. E. (diploma indorsed).....	San Francisco.
Fox, H. B.....	San Francisco.
Ferguson, T. H.....	San Francisco.
Fox, J. M.....	San Francisco.
Fuller, C. H.....	San Francisco.
Gore, Arthur.....	San Francisco.
Gorton, C. D.....	San Francisco.
Goe, Samuel E.....	San Francisco.
Goddard, C. L.....	San Francisco.
Gonzales, I. T.....	San Francisco.
Gabbs, M. F.....	San Francisco.
Griswold, W. F.....	San Francisco.
Graves, W. L.....	San Francisco.
Gunzburger, B. M.....	San Francisco.
Griffiths, Allen.....	San Francisco.
George, E.....	San Francisco.
Gibson, Fred. M.....	San Francisco.
Gambetz, Milton R. (examined by Board).....	San Francisco.
Gibson, J. M. (diploma indorsed).....	San Francisco.
Hoffeng, Fred.....	San Francisco.
Hardcastle, George.....	San Francisco.
Hill, Alfred S.....	San Francisco.
Hibbard, C. W.....	San Francisco.
Heins, Julius.....	San Francisco.
Hatch, J. A.....	San Francisco.
Hill, Albert B.....	San Francisco.
Hill, Thomas L.....	San Francisco.
Hill, Walter B.....	San Francisco.
Haselhurst, A. O.....	San Francisco.
Hill, Alfred L.....	San Francisco.
Haines, B. W.....	San Francisco.
Harrison E. L.....	San Francisco.
Hastings, Robert.....	San Francisco.
Hackett, F. M.....	San Francisco.
Iglehart, T. A.....	San Francisco.
Jacobs, B. R.....	San Francisco.
Jennin, E. L.....	San Francisco.
Kauffung, Louis H.....	San Francisco.
Knox, Henry E.....	San Francisco.
King, L. A.....	San Francisco.
Kemp Van Eee, Fred.....	San Francisco.
King, Wm. J.....	San Francisco.
Knowlton, John S.....	San Francisco.
Lord, F. S.....	San Francisco.
Lubbock, W. C.....	San Francisco.
Lee, L. A.....	San Francisco.
Lundborg, J. A. W.....	San Francisco.
Lightbody, H.....	San Francisco.
Leek, Geo. W.....	San Francisco.
Locke, C. W.....	San Francisco.
Lord, C. C.....	San Francisco.
Lawrence, Geo. O.....	San Francisco.
Lightcap, Sam. E.....	San Francisco.
Morffew, Thos.....	San Francisco.
Moulton, Calvin B.....	San Francisco.
Myers, Oliver P.....	San Francisco.
Monroe, Geo. P.....	San Francisco.
Maunder, Philip.....	San Francisco.
Moore, C.....	San Francisco.
Morton, Henry R.....	San Francisco.
McKenzie, A. W.....	San Francisco.
Matthews, James.....	San Francisco.
Massie, H. C.....	San Francisco.
Malech, T. G.....	San Francisco.
Morton, H. R., Jr.....	San Francisco.
Mancilla, Maguel.....	San Francisco.
Mendes, Chas.....	San Francisco.
Maldonado, E. (diploma indorsed).....	San Francisco.
McDonald, Geo. W. (diploma indorsed).....	San Francisco.
Neumann, L.....	San Francisco.
Newton, Stanley D. (examined by Board).....	San Francisco.

Pierce, T. B.	San Francisco.
Price, W. E.	San Francisco.
Park, E. E.	San Francisco.
Peel, Jonathan M.	San Francisco.
Perry, Chas. A.	San Francisco.
Proll, R. B.	San Francisco.
Planteaux, H. J.	San Francisco.
Porter, John S.	San Francisco.
Pratt, Frank E.	San Francisco.
Pancoast, Franklin	San Francisco.
Pugsley, Sanford (diploma indorsed)	San Francisco.
Pring, Ernest (examined by Board)	San Francisco.
Ralls, R. F.	San Francisco.
Rea, C. F.	San Francisco.
Rineboid, J. J.	San Francisco.
Remington, J. W.	San Francisco.
Ran, Henry	San Francisco.
Rietzhe, Gustav	San Francisco.
Rankin, J. H.	San Francisco.
Richards, C. W.	San Francisco.
Richards, W. H.	San Francisco.
Robinson, W. H.	San Francisco.
Roberts, S. H.	San Francisco.
Rowand, James T. (diploma indorsed)	San Francisco.
Sichel, G. W. (diploma indorsed)	San Francisco.
Schultz, E. H.	San Francisco.
Sublett, W. A.	San Francisco.
Swartzschild, F.	San Francisco.
Salmon, William	San Francisco.
Switser, Anna	San Francisco.
Spear, Thomas R.	San Francisco.
Sylvester, H.	San Francisco.
Smith, M. E.	San Francisco.
Schneider, Joseph	San Francisco.
Simms, Charles	San Francisco.
Sloat, Charles F.	San Francisco.
Sichel, Max.	San Francisco.
Swain, E. M.	San Francisco.
Stevens, Henry H.	San Francisco.
Sanger, I.	San Francisco.
Spence, Stuart J.	San Francisco.
Sheets, H. Clay	San Francisco.
Sandford, L. N.	San Francisco.
Stanley, W. H.	San Francisco.
Sullivan, Maurice J.	San Francisco.
Savage, Henry	San Francisco.
Turner, H. C.	San Francisco.
Turner, W. A.	San Francisco.
Truman, H. G.	San Francisco.
Thrall, H. H.	San Francisco.
Troist, J. F.	San Francisco.
Thraillkill, Wm. O.	San Francisco.
Teague, L. A.	San Francisco.
Teague, Fred.	San Francisco.
Trumpour, J. P.	San Francisco.
Urmy, H. N.	San Francisco.
Verrinder, A. E. (diploma indorsed)	San Francisco.
Verrinder, R. F. (diploma indorsed)	San Francisco.
Van Ordan, L.	San Francisco.
Vidaver, N. J.	San Francisco.
Van Crombrugge, A.	San Francisco.
Winter, J. W.	San Francisco.
Winter, W. G.	San Francisco.
Wilson, C. H.	San Francisco.
Wilbert, J. L.*	San Francisco.
Wood, Andrew B.	San Francisco.
Warner, A.	San Francisco.
Wade, Thomas*	San Francisco.
Whitcomb, N. T.	San Francisco.
Young, H. G.	San Francisco.
Younger, W. J.	San Francisco.
Younger, Ed. A.	San Francisco.

* Deceased.

SONOMA COUNTY.

Anderson, David P. (examined by Board)	Santa Rosa.
Biddle, E. W.	Healdsburg.
Caldwell, C. L.	Santa Rosa.
Cook, W. E.	Healdsburg.
Caldwell, F. M.	Santa Rosa.
Cole, Hiram	Santa Rosa.
Coomes, A. M.	Cloverdale.
Campbell, R. E. (examined by Board)	Healdsburg.
Eshbach, D. M.	Sonoma.
Galbraith, M. D.	Cloverdale.
Huebner, O. C.	Healdsburg.
Jones, Harold McKean (diploma indorsed)	Cloverdale.
Kruegner, O. F.	Healdsburg.
Lovejoy, S. E.	Petaluma.
Lovejoy, Geo. E.	Petaluma.
McLain, A. F.	Santa Rosa.
Perkins, C. O.	Petaluma.
Powell, John D.	Healdsburg.
Reed, Chas. W.	Santa Rosa.
Savage, C. W.	Santa Rosa.
Saul, Geo. M.	Santa Rosa.
Stone, John T.	Santa Rosa.
Wiley, J. N.	Santa Rosa.

SUTTER COUNTY.

Moore, J. E.	Live Oak.
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TRINITY COUNTY.

Spratt, C. W.	Weaverville.
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TUOLUMNE COUNTY.

Menendez, I. A.	Sonora.
Menendez, Henry	Sonora.

TEHAMA COUNTY.

Barrett, C. J.	Red Bluff.
Fuller, F. N.	Red Bluff.
Sehorn, W. A.	Red Bluff.

TULARE COUNTY.

Asay, J. L.	Visalia.
Asay, C. E.	Visalia.
Boone, Nathaniel J. (diploma indorsed)	Traver.
Cooper, E. M.	Visalia.
Hunsaker, G. W.	Tulare.
Key, T. B.	Tulare.
Martin, Todd	Tulare.

VENTURA COUNTY.

Hedrick, Lyman	Ventura.
Stewart, S. L.	Ventura.
Staire, J. M. (diploma indorsed)	Ventura.

YOLO COUNTY.

Dick, A. N.	Woodland.
Holmes, L. B.	Woodland.
Hodgen, I.	Woodland.
Hodgen, J. D. (diploma indorsed)	Woodland.
Musselman, D.	Madison.

YUBA COUNTY.

Boyd, Geo. H.	Marysville.
Jewett, Stanley	Marysville.
Smith, J. B. N.	Marysville.
Walker, John D.	Hansonville.
Walker, Albin J.	Hansonville.

SIXTH ANNUAL REPORT

OF THE

BOARD OF DENTAL EXAMINERS

OF THE

STATE OF CALIFORNIA.



SACRAMENTO:

STATE OFFICE, : : : : : J. D. YOUNG, SUPT. STATE PRINTING.

1890.

REPORT.

To his Excellency R. W. WATERMAN, Governor of the State of California:

SIR: The Board of Dental Examiners of the State of California submit the following as their sixth annual report of its proceedings, together with an account of all moneys received and disbursed in compliance with the requirements of that certain Act of the Legislature, entitled "An Act to insure the better education of practitioners of dental surgery, and to regulate the practice of dentistry in the State of California," approved March 12, 1885, a copy of which is hereunto annexed.

Since issuing the last report, the Board has held four meetings.

On May eighth, Governor R. W. Waterman appointed on the Board F. F. Tebbetts, of Sacramento, vice J. S. Crawford, term expired.

At the meeting held July 10, 1890, eighteen candidates appeared for examination, nine of whom successfully passed. At this meeting the election of officers was held.

Dr. S. E. Knowles, of San Francisco, was elected President, and Dr. W. F. Griswold, of San Francisco, was elected Secretary.

The following are the present officers and members of the Board:

S. E. Knowles, M.D., D.D.S., President	San Francisco.
W. J. Younger, M.D.	San Francisco.
Dr. J. J. Birge	San Francisco.
Thomas Morffew, D.D.S.	San Francisco.
Dr. F. F. Tebbetts	Sacramento.
E. L. Townsend, D.D.S.	Los Angeles.
Dr. W. F. Griswold, Secretary	San Francisco.

During the past year two persons have been registered.

Eighteen diplomas have been indorsed, and nine candidates have received certificates on examination.

A list of all whose names have been registered, and of those whose diplomas have been indorsed, and of all those who have received certificates on the examinations of the Board, is hereunto annexed.

The following is an account of all money received and disbursed by the Board since the last report:

RECEIPTS.

For registration, for four persons, at \$1 each	\$4 00
For indorsement of diplomas, eighteen applicants, at \$10 each	180 00
For examination of twenty-one applicants, at \$10 each	210 00
Total	\$394 00
Balance on hand at last report	169 40
Making a total of	\$563 40

DISBURSEMENTS.

Printing	\$26 05
Stationery	35 12
Traveling expenses of members	49 00
Necessary clerical expenses	35 00
Rent of hall, one year	130 00
Incidentals	15 55
Fee returned by order of the Board	10 00
Total	300 72
Balance in hand of Secretary	\$262 68

All persons who are now practicing dentistry in this State, and who have not received a certificate from this Board in pursuance of the Act mentioned, are violating the law, and are subject to arrest, and a fine of \$50 to \$200, or imprisonment for six months in the county jail, for each and every offense.

It will be necessary for all persons who may hereafter desire to engage in the practice of dentistry in this State to secure a certificate from this Board, upon a diploma from a reputable dental college, or after examination in dental surgery, as required by the Act of March 12, 1885. In examining applicants for certificates to practice dentistry, the Board will examine in the branches of anatomy, physiology, pathology, histology, hygiene, materia medica, therapeutics, chemistry, metallurgy, operative dentistry, dental jurisprudence, and prosthetic dentistry. Examinations will be both written and clinical. Seventy-five per cent will be required on the written examinations, and in addition a satisfactory clinical examination will be required of all those who are successful on the written examinations.

Each applicant must come prepared to do any work designated for him. The Board will furnish chairs, engines, vulcanizers, and all necessary materials.

The next regular meeting for the examination of candidates will be held in San Francisco, commencing Tuesday, August 11, 1891, at 10 A. M.

It seems to be popularly supposed that the Board of Examiners shall prosecute all persons violating the law. This is not the case; but it is the duty of every dentist to see that the law is enforced, and it is the duty of every prosecuting attorney of each county to prosecute every person violating the law, on receipt of information of such violation and the necessary evidence to establish the fact.

STEPS TO BE TAKEN TO PROSECUTE.

Positive evidence of the violation of the law must first be obtained. This, with a formal information and a list of witnesses, should be handed to the prosecuting attorney, who will then be in duty bound to prosecute the case.

The attention of licensees is called to the fact that they are required to have their licenses recorded with the County Clerk of the county in which such persons may reside; it requires no action of the Board to work a forfeiture of the license under Section 8 of the law: The fact of failure to have it recorded within six months of date of issue, subjects licensee to the penalty for neglect.

We recommend that Section 6 of the Dental Law be amended, so that the informer of violations of the Act, "in cases of conviction," shall receive one half the fine imposed.

The Board is more than ever impressed with the importance of legislation of this character, and have greater confidence that the judicious administration of the law under which they act must redound to the benefit of the community.

All of which is respectfully submitted. Board of Dental Examiners of the State of California.

S. E. KNOWLES, M.D., D.D.S.,
President.

W. F. GRISWOLD,
Secretary.

OCTOBER 13, 1890.

AN ACT

To Insure the Better Education of Practitioners of Dental Surgery, and to Regulate the Practice of Dentistry in the State of California.

[Approved March 12, 1885.]

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. It shall be unlawful for any person, who is not at the time of the passage of this Act engaged in the practice of dentistry in this State, to commence such practice unless he or she shall have obtained a certificate, as hereinafter provided.

SEC. 2. A Board of Examiners, to consist of seven practicing dentists, is hereby created, whose duty it shall be to carry out the purposes and enforce the provisions of this Act. The members of said Board shall be appointed by the Governor from the dental profession of the State at large. The term for which the members of said Board shall hold their office shall be four years, except that two of the members of the Board first to be appointed under this Act shall hold their office for the term of one year, two for the term of two years, two for the term of three years, and one for the term of four years, respectively, and until their successors shall be duly appointed and qualified. In case of a vacancy occurring in said Board, such vacancy shall be filled by the Governor, in conformity with this section.

SEC. 3. Said Board shall choose one of its members President and one Secretary thereof, and it shall meet at least once in each year, and as much oftener and at such times and places as it may deem necessary. A majority of said Board shall, at all times, constitute a quorum, and the proceedings thereof shall, at all reasonable times, be open to public inspection.

SEC. 4. Within six months from the time this Act takes effect, it shall be the duty of every person who is now engaged in the practice of dentistry in this State to cause his or her name and residence, or place of business, to be registered with said Board of Examiners, who shall keep a book for that purpose. The statement of every such person shall be verified under oath before a Notary Public or Justice of the Peace, in such manner as may be prescribed by the Board of Examiners. Every person who shall so register with said Board as a practitioner of dentistry, shall receive a certificate to that effect, and may continue to practice as such without incurring any of the liabilities or penalties provided in this Act, and shall pay to the Board of Examiners for each registration the fee of one dollar. It shall be the duty of the Board of Examiners to forward to the County Clerk of each county in the State a certified list of the names of all persons residing in his county who have registered in accordance with the provisions of this Act, and it shall be the duty of all County Clerks to register such names in a book to be kept for that purpose.

SEC. 5. Any and all persons who shall so desire, may appear before the Board at any of its regular meetings and be examined in reference to their knowledge and skill in dental surgery; and if the examination of any such person or persons shall prove satisfactory to said Board, the Board of Examiners shall issue to such persons as they shall find to possess the requisite qualifications a certificate to that effect, in accordance with the provisions of this Act. Said Board shall also indorse as satisfactory, diplomas from any reputable dental college, when satisfied as to the character of such institution, upon the holder furnishing evidence satisfactory to the Board of his or her right to the same, and shall issue certificates to that effect within ten days thereafter. All certificates issued by said Board shall be signed by its officers, and such certificates shall be prima facie evidence of the right of the holder to practice dentistry in the State of California.

SEC. 6. Any person who shall violate any of the provisions of this Act shall be deemed guilty of a misdemeanor, and upon conviction, may be fined not less than fifty dollars nor more than two hundred dollars, or confined six months in the county jail, for each and every offense. All fines recovered under this Act shall be paid into the Common School Fund of the county in which such conviction takes place.

SEC. 7. In order to provide the means for carrying out and maintaining the provisions of this Act, the said Board of Examiners shall charge each person applying to, or appearing before them for examination for a certificate of qualifications, a fee of ten dollars, which fee shall be in no case returned; and out of the funds coming into the possession of the Board from the fees so charged, and penalties received under the provisions of this Act, all legitimate and necessary expenses incurred in attending the meetings of said Board shall be paid; and no part of the expenses of the Board shall ever be paid out of the State Treasury. All moneys received in excess of expenses above provided for shall be held by the Secretary of said Board as a special fund for meeting the expenses of said Board, and carrying out the provisions of this Act, he giving such bonds as the Board shall from time to time direct; and said Board shall make an annual report of its proceedings to the Governor by December first of each year, together with an account of all moneys received and disbursed by them pursuant to this Act.

SEC. 8. Any person who shall receive a certificate from said Board to practice dentistry, shall cause his or her certificate to be registered with the County Clerk of the county in which such person may reside, and the County Clerk shall charge for registering such certificate a fee of one dollar. Any failure, neglect, or refusal on the part of any person holding such certificate to register the same with the County Clerk as above directed, for a period of six months, shall work a forfeiture of the certificate, and no certificate, when once forfeited, shall be restored, except upon the payment to said Board of twenty-five dollars, as a penalty of such neglect, failure, or refusal.

SEC. 9. Any person who shall knowingly or falsely claim, or pretend to have or hold a certificate of license, diploma, or degree granted by any society organized under and pursuant to the provisions of this Act, or who shall falsely, and with intent to deceive the public, claim, or pretend to be a graduate from any incorporated dental college, shall be deemed guilty of a misdemeanor, and shall be liable to the same penalty as provided in Section 6.

SEC. 10. Nothing in this Act shall be so construed as to prohibit any practicing physician from extracting teeth.

SEC. 11. This Act shall take effect immediately.

OFFICIAL REGISTER

OF DENTISTS HOLDING CERTIFICATES FROM THE BOARD OF DENTAL
EXAMINERS IN THE STATE OF CALIFORNIA.

ALAMEDA COUNTY.

Armstrong, John J.	Alameda.
Beales, C. H.	Oakland.
Bills, Albert V. (diploma indorsed)	Oakland.
Belfils, E. K.	Oakland.
Burnett, E. K.	Oakland.
Brooks, W. E.	Oakland.
Bishop, M. N.	Alameda.
Bates, C. P.	Berkeley.
Barradas, F. C.	San Leandro.
Bernard, Geo.* (diploma indorsed)	Livermore.
Cole, R. E.	Oakland.
Craig, W. H.	Oakland.
Carpenter, O.	Oakland.
Cool, R. H.	Oakland.
Cornwall, A.	Oakland.
Cool, G. W.	Oakland.
Corwin, Cecil (examined by Board)	Oakland.
Cool, Mrs. Lue	Oakland.
Carlton, Harry P. (diploma indorsed)	Oakland.
Danziger, G. A.	Oakland.
Dimmick, Joseph	Oakland.
Dunn, R. K.	Oakland.
Edwards, B. F.	Oakland.
Fisher, F. H. (examined by Board)	Oakland.
Gilman, S. M.	Oakland.
Garcia, M. J.	San Leandro.
Halsey, I. S.	Oakland.
Hall, T. W.	Oakland.
Hutton, J. A. D.	Berkeley.
Hempstead, J. E.	Oakland.
Hackett, S. A.	Oakland.
Knowles, S. E.	Alameda.
Knowles, William A.	Alameda.
Kriebbaum, G. H.	Oakland.
Koehler, Frank	Sunol.
Kenworthy, L.	San Leandro.
Lane, C. S.	Oakland.
Lee, E. W.*	East Oakland.
Luce, G. J.	Oakland.
Lane, Frederic James (diploma indorsed)	Oakland.
Lewis, Walter F. (examined by Board)	Oakland.
Meek, R. W.	Oakland.
Mories, A. H.	Alameda.
Morris, T. H.	Oakland.
Merriman, A. F.	Oakland.
Merriman, A. F., Jr.	Oakland.
Moulton, H. G. (examined by Board)	Oakland.
McCargar, Phil. (diploma indorsed)	Oakland.
Petton, L. D.	Oakland.
Powell, Andrew J. (diploma indorsed)	Haywards.
Plomteaux, H. J.	Oakland.
Rodolph, Chas. T.	Oakland.
Rabe, John	Oakland.
Stoakes, F. C.	San Leandro.
Simmons, W. H.	Oakland.
Schmidt, G. L.	Oakland.
Schumer, A. C.	Oakland.
Saxe, Fred. J. (diploma indorsed)	Oakland.

*Deceased.

Savage, S. L.	Livermore.
Tate, S. P., Jr.	Oakland.
Titcomb, C. B.	Oakland.
Timerman, E. C. (diploma indorsed).	Oakland.
Wilson, O. F.	Oakland.
Waltz, G. W.	Oakland.
Walker, Chas. H. (examined by Board)	Oakland.

AMADOR COUNTY.

Gray, John	Ione.
Gabbs, E. S.	Sutter Creek.
La Due, W. K.	Plymouth.

BUTTE COUNTY.

Crum, T. A.	Chico.
McFadgen, A.	Chico.
Norman, George H.	Gridley.
Read, W. S.	Oroville.
Stewart, Robert (diploma indorsed).	Chico.
Vanaukin, J. R.	Chico.
Ward, S. T.	Chico.
Wasley, D. W.	Chico.

COLUSA COUNTY.

Ciley, J. L.	Little Stony.
Pirkey, M.	Willows.
Pirkey, Frank Zea (diploma indorsed).	Colusa.
Smith, Frank Z.	Colusa.
Washer, W. A.	Willows.

CONTRA COSTA COUNTY.

McCabe, Edward	Brentwood.
Moore, J. S.	Martinez.
Moore, J. S., Jr.	Martinez.

CALAVERAS COUNTY.

Oviatt, S. M.	San Andreas.
Smith, C. D.	Angels Camp.

EL DORADO COUNTY.

Stone, W. W.	Placerville.
Tyson, Chas.	Placerville.
Walk, Chas. L.	Placerville.

FRESNO COUNTY.

Cooper, J. C.	Fresno.
Couch, Fred. L. (diploma indorsed)	Selma.
Doyle, B. W.	Fresno.
Earl, George W. (diploma indorsed).	Selma.
Hunsaker, A. L.	Fresno.
Hendricks, H. T.	Kingsburg.
Marcoux, Henry F. (diploma indorsed)	Fresno.
Prather, W. J.	Fresno.

HUMBOLDT COUNTY.

Beverton, D. W.	Eureka.
Ingersall, A. E.	Eureka.
Johnston, Robert (diploma indorsed).	Ferndale.
O'Connor, D. L.	Blocksburg.
Ray, C. B.	Arcata.
Thompson, R. P.	Ferndale.
Weldon, E. J.	Eureka.
Weldon, J. A.	Eureka.

KERN COUNTY.

Bonham, J. F.	Bakersfield.
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LOS ANGELES COUNTY.

Adams, S. H.	Los Angeles.
Bird, W. R.	Los Angeles.
Baldwin, C. V.	Los Angeles.
Bourne, Robert R. (diploma indorsed)	Los Angeles.
Broadbeck, H. W. (diploma indorsed)	Los Angeles.
Cunningham, R. G.	Los Angeles.
Crawford, J. S.	Los Angeles.
Carroll, H. H. (diploma indorsed)	Los Angeles.
Deffenbacher, D. S. (examined by Board)	Los Angeles.
French, L. W.	Los Angeles.
Fuëlgraff, Alma M. E. (diploma indorsed)	Los Angeles.
Harlan, C. N.*	Los Angeles.
Hubbell, A. B.	Los Angeles.
Hollingsworth, M. W.	Los Angeles.
Hollingsworth, J. W.	Los Angeles.
Hays, A. P. (diploma indorsed)	Los Angeles.
Janes, R. K.	Pasadena.
Knepper, G. (examined by Board)	Los Angeles.
Lowder, W. D. (examined by Board)	Santa Monica.
Little, F. F. (diploma indorsed)	Los Angeles.
Masser, W. H.	Los Angeles.
Milliard, G. A.	Compton.
Morris, R. W. (diploma indorsed)	Los Angeles.
Nichols, A. E. (diploma indorsed)	Pasadena.
Palmer, Frank M.	Los Angeles.
Palmer, Arthur H. (diploma indorsed)	Pasadena.
Parker, C. H. (examined by Board)	Los Angeles.
Stephens, Frank E.	Los Angeles.
Stephens, C.	Los Angeles.
Spinks, M. E.	Los Angeles.
Smitt, Uriel	Los Angeles.
Shoemaker, R. H.	San Gabriel.
Small, H. E.	Los Angeles.
Swift, Theodore E. (diploma indorsed)	Los Angeles.
Tolhurst, S. H.	Los Angeles.
Tolhurst, G. W.	Los Angeles.
Townsend, E. L. (diploma indorsed)	Los Angeles.
Townsend, Jesse R. (diploma indorsed)	Pasadena.
Case, Isaac M. (diploma indorsed)	Pomona.
Dunn, J. H.	Pomona.
Hurt, J. M. (examined by Board)	Pomona.
Todd, Baxter	Los Angeles.
Todd, Robert A. (diploma indorsed)	Los Angeles.
Von Bonhorst, C. G.	Pomona.
White, J. M.	Los Angeles.
Wells, L. W.	Los Angeles.
Wilder, D. R.	Los Angeles.

LAKE COUNTY.

Gilstrop, J. M.	Kelseyville.
Hutchins, J. M.	Lakeport.
Redmond, J. J.	Middletown.

LASSEN COUNTY.

Leonard, J. G.	Susanville.
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MARIN COUNTY.

Thomas, H. B.	San Rafael.
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MODOC COUNTY.

Camicia, L. S.	Lookout.
Epperson, J. H.	Alturas.
Taylor, J. M.	Alturas.

MONTEREY COUNTY.

Barden, W. N.	Salinas.
Lemon, George B.	Salinas.

* Deceased.

MENDOCINO COUNTY.

Copsey, A. N. (diploma indorsed)	Mendocino.
Card, Ira D.	Ukiah.
Fare, John	Westport.
Higgins, C. R.	Fort Bragg.
Hoffman, M.	Ukiah.
Holmes, C. A.	Mendocino City.
Hogshead, W. H.	Ukiah.
Mitchell, Hiram H.	Ukiah.
Mitchell, Martin N.	Ukiah.
McGowen, G.	Ukiah.
Willsey, T. F.	Covelo.

MERCED COUNTY.

Prather, W. R.	Merced.
Wassman, Max	Merced.

NAPA COUNTY.

Bates, C. P.	Napa.
Davis, C. E.	St. Helena.
Farman, C. H.	Napa.
Hackett, C. C.	Napa City.
Key, J. W.	Calistoga.
Porter, E. M.	Napa.
Porter, S. P.	Napa.
Root, W. A.	St. Helena.
Sabin, C. R.	St. Helena.

NEVADA COUNTY.

Archer, Ira B. (diploma indorsed)	North San Juan.
Carr, G. B.	Grass Valley.
Chapman, Mrs. N. E.	Nevada City.
Chapman, A.	Nevada City.
Eastman, W. W.	Nevada City.
Hays, Irwin W.	Grass Valley.
Harris, S. M.	Grass Valley.
Harris, M. P. (diploma indorsed)	Grass Valley.
Lancaster, C. E.	North San Juan.
Martin, S. D.	Nevada City.
McIntyre, T. W.	Nevada City.
Pennington, A. R.	Nevada City.
Porter, J. P.	Truckee.
Robinson, F. A.	Nevada City.
Riley, J. W.	Grass Valley.
Ward, S. T.*	Nevada City.

ORANGE COUNTY.

Burgess, R. F.	Santa Ana.
McCoy, John C.	Orange.
Purnell, George E. (diploma indorsed)	Orange.
Menges, M. A. (diploma indorsed)	Santa Ana.
Vanderlip, John T.	Santa Ana.
Vanderlip, George G.	Santa Ana.
Young, John E.	Santa Ana.

PLUMAS COUNTY.

Cate, David B. (diploma indorsed)	Quincy.
Hyde, Alfred T. (examined by Board)	Spanish Ranch.
Hyde, Chas. G. (examined by Board)	Spanish Ranch.

PLACER COUNTY.

Hitchcock, J. W. (examined by Board)	Auburn.
Hawver, J. C.	Auburn.
Newson, G. W. (examined by Board)	Auburn.
Rea, John	Lincoln.
Smith, J. F.	Forest Hill.
Wilson, M. W.	Dutch Flat.
Ward, J. N. (examined by Board)	Newcastle.

* Deceased.

STANISLAUS COUNTY.

Drollard, T. W.	Modesto.
Lockwood, A. T. (examined by Board)	Modesto.
Moad, B. R.	Modesto.
Preshaw, R. G.	Oakdale.

SISKIYOU COUNTY.

Hearn, F. G.	Yreka.
Larison, Chas. A.	Yreka.
Remington, C. L. (diploma indorsed)	Yreka.
Millberry, Arthur H.	Jordan.

SACRAMENTO COUNTY.

Bates, B. F.	Folsom.
Gardner, Ed.	Sacramento.
Horner, J. Van C.	Sacramento.
Light, W. W.	Sacramento.
Milliken, C. T. (diploma indorsed)	Sacramento.
Metcalf, Fred. S. (diploma indorsed)	Sacramento.
Pierson, H. H.	Sacramento.
Reid, T. B.	Sacramento.
Shaw, I. G.	Sacramento.
Stephenson, C. H.	Sacramento.
Shields, F. M.	Sacramento.
Southworth, S. S.	Sacramento.
Southworth, E. L. (diploma indorsed)	Sacramento.
Stall, B. F.	Sacramento.
Tebbetts, F. F.	Sacramento.
Wood, Wm.	Sacramento.

SHASTA COUNTY.

Gleaves, A. D.	Anderson.
Hartman, W. P.	Shasta City.
La Baree, W. H.	Shasta City.
Manchester, M. R.	Redding.
Tope, John H.	Redding.

SAN DIEGO COUNTY.

Barnes, F. J.	San Diego.
Cave, D.	San Diego.
Coomes, F. E.	San Diego.
Cogswell, Thomas (diploma indorsed)	El Cajon.
Gould, H. W.	San Diego.
Gildea, Bernard M. (diploma indorsed)	San Diego.
Goodearle, J. H. (diploma indorsed)	Elsinore.
Glidden, Miles D. (diploma indorsed)	National City.
Harbison, H. R. (diploma indorsed)	San Diego.
Hurd, Edgar L. (diploma indorsed)	San Diego.
Leonard, C. N. (diploma indorsed)	National City.
Matthews, E. S. (diploma indorsed)	San Diego.
Merrill, Alfred P. (diploma indorsed)	San Diego.
Phillips, R. F.	San Diego.
Parker, D. S. (diploma indorsed)	West Fall Brook.
Price, J. T. (diploma indorsed)	San Jacinto.
Rainey, T. H. (examined by Board)	San Jacinto.
Sheriff, E. W. (diploma indorsed)	San Diego.
Wasson, John B. (diploma indorsed)	San Diego.

SAN BERNARDINO COUNTY.

Bedford, L. N. (diploma indorsed)	San Bernardino.
Bogart, S. C.	San Bernardino.
Musselman, S.	Cucamonga.
Packard, Charles W.	Riverside.
Parker, Francis Marion (diploma indorsed)	Riverside.
Ross, Charles G. (diploma indorsed)	Riverside.
Sylvester, C. W.	Riverside.
Tremper, Robert H. (diploma indorsed)	Ontario.
Taber, M. E. (diploma indorsed)	San Bernardino.
Whitlock, Alma	San Bernardino.
Westover, G. C.	Riverside.

SANTA BARBARA COUNTY.

Doulton, G. H.	Santa Barbara.
Dimock, H. C.	Lompoc.
Edmonds, J. H. (diploma indorsed)	Santa Barbara.
Lee, D. B.	Santa Barbara.
Livermore, George W.	Santa Barbara.
Moore, H. W. (diploma indorsed)	Santa Barbara.
Shrewsbury, N.	Santa Barbara.
Stauffer, H. W.	Santa Barbara.
Simpson, G. W. (examined by Board)	Santa Barbara.
Van Winckel, H. M.	Santa Barbara.
Viall, George (diploma indorsed)	Santa Barbara.
White, George Archer (diploma indorsed)	Santa Barbara.
Yates, Lorenzo G.	Santa Barbara.

SAN MATEO COUNTY.

Decker, John H.	San Mateo.
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SANTA CLARA COUNTY.

Argall, Frank L.	San José.
Barker, Albert M.	San José.
Brigham, K. A.	Gilroy.
Bonham, C. A.	Santa Clara.
DeCrow, Warren	San José.
Finnegan, L.	San José.
Fleming, C. K.	San José.
Fisher, Mrs. Minnie	San José.
Gallup, Thomas E.	Santa Clara.
Gaston, W. A.	San José.
Gaston, A. A. (examined by Board)	San José.
Gothard, J. T.	Los Gatos.
Hooker, A. O.	San José.
Hall, E. C.	San José.
Holmes, Stephen	San José.
Jenkins, O. C. (diploma indorsed)	San José.
King, J. F.	San José.
Klein, N.	San José.
Knapp, A. R.	San José.
Kingsbury, William B.	Santa Clara.
Ledyard, F. K.	San José.
McGraw, D. F. (examined by Board)	San José.
Nevins, George F. (diploma indorsed)	San José.
Rogers, E. P.	Gilroy.
Rhodes, S. R.	San José.
Rogers, F. S.	Gilroy.
Sprake, W. T.	San José.
Spaw, C. R.*	San José.
Whipple, T. S.	San José.

SANTA CRUZ COUNTY.

Bliss, F. W.	Santa Cruz.
Bliss, Chas. L.	Santa Cruz.
Butterfield, C. L.	Watsonville.
Gordon, Oscar L.	Santa Cruz.
Kirkpatrick, H. C.	Santa Cruz.
Lundy, E. A.	Santa Cruz.
Libbey, J. L.	Watsonville.
Parker, James P. (diploma indorsed)	Santa Cruz.
Swain, H. P.	Watsonville.
Stickel, John L. (diploma indorsed)	Watsonville.

SAN BENITO COUNTY.

Cooper, Martin S.	Hollister.
Hendricks, John D.	Hollister.
Rubell, W. H.	Bitter Water.

SAN JOAQUIN COUNTY.

Burton, Frank	Stockton.
Davenport, A. C.	Stockton.
Fickett, S. H.	Stockton.

* Deceased.

Goodell, L. E.*	Stockton.
Hann, W. D.*	Lodi.
Henderson, W. R.	Stockton.
Henderson, R. W.	Stockton.
Haines, N. J.	Stockton.
Meseroll, J. M.	Stockton.
Parsons, M. W.	Stockton.
Wallace, W. G.	Stockton.
Turner, P. T.	Lodi.

SOLANO COUNTY.

Harding, W. C.	Suisun.
Moore, W. A.	Benicia.
Pendleton, B. F.	Vallejo.
Shaw, John F.	Vallejo.
Upchurch, N. B.	Vacaville.
Upham, F. F.	Dixon.
Voories, George L.	Vallejo.
Wyatt, M. O.	Dixon.
Stanton, J. C.	Rio Vista.
Platt, F. L. (diploma indorsed)	Vacaville.

SIERRA COUNTY.

Chapman, S. A.	Sierra City.
Douglas, G.	Downieville.
Gardiner, Thomas (diploma indorsed)	Downieville.

SAN LUIS OBISPO COUNTY.

Brown, W. G.	San Luis Obispo.
Garrison, D. M.	San Luis Obispo.
Nelson, W. H.	San Luis Obispo.
Richey, William S. (diploma indorsed)	San Luis Obispo.

SAN FRANCISCO COUNTY.

Adams, Q. L.	San Francisco.
Austin, H.	San Francisco.
Baynes, H. F. (diploma indorsed)	San Francisco.
Boyd, C. W.	San Francisco.
Bolton, Thomas	San Francisco.
Brewer, B. B.	San Francisco.
Beers, Barrett	San Francisco.
Bray, Geo. F. I. (examined by Board)	San Francisco.
Birge, J. J.	San Francisco.
Blankman, Wm.	San Francisco.
Bunnell, E. F.	San Francisco.
Burns, O. B.	San Francisco.
Braisdell, John H.	San Francisco.
Burch, Maria A.*	San Francisco.
Brown, A. V.	San Francisco.
Bush, Louis	San Francisco.
Bush, Chas. G. (diploma indorsed)	San Francisco.
Blake, A. E.	San Francisco.
Blondin, Arthur	San Francisco.
Blake, Chas. E.	San Francisco.
Bliss, F. A.	San Francisco.
Blood, J. N.	San Francisco.
Bloch, C.	San Francisco.
Bettis, Harry S.	San Francisco.
Boxton, C.	San Francisco.
Botsford, George (diploma indorsed)	San Francisco.
Brewer, F. A.	San Francisco.
Brewer, J. L.	San Francisco.
Brown, W.	San Francisco.
Bryant, W. A. (diploma indorsed)	San Francisco.
Brooks, F. A. (examined by Board)	San Francisco.
Boys, Henry S. (examined by Board)	San Francisco.
Chalfant, S. P. (diploma indorsed)	San Francisco.
Caranza, V. A.	San Francisco.
Case, E. G. (examined by Board)	San Francisco.
Clark, Franklin N.	San Francisco.

* Deceased.

Cogswell, James L.	San Francisco.
Croome, William	San Francisco.
Case, Charles E.	San Francisco.
Clarke, W. H.	San Francisco.
Cranz, Louis F.	San Francisco.
Conwell, C. C.	San Francisco.
Cochrane, E. O.	San Francisco.
Cummings, J. E.	San Francisco.
Crossett, E. T.	San Francisco.
Craigie, Henry	San Francisco.
Cane, Alfred	San Francisco.
Conradt, J. H.	San Francisco.
Coulson, N. T. (diploma indorsed)	San Francisco.
Cahill, S. D.	San Francisco.
Crossett, Truman	San Francisco.
Curragh, J. M.	San Francisco.
Card, W. H.	San Francisco.
Chase, Maurice	San Francisco.
Christopher, T.	San Francisco.
Cutlar, R.	San Francisco.
Cool, W. P.	San Francisco.
Cassilly, John P.	San Francisco.
Case, George A.	San Francisco.
Christensen, G. A.	San Francisco.
Dennis, S. W.	San Francisco.
Dentler, Ed. F.	San Francisco.
Drucker, Wm. E.	San Francisco.
Decker, Chas. W.	San Francisco.
Duckett, C. S.	San Francisco.
Drucker, George J.	San Francisco.
Dunbar, L. L.	San Francisco.
Davis, Henry C.	San Francisco.
Dyer, J. J.	San Francisco.
Dutch, William*	San Francisco.
Dean, G. S.	San Francisco.
Dempster, James	San Francisco.
Dean, C. O.	San Francisco.
Davidson, Robert (examined by Board)	San Francisco.
Dunn, Martin J. (diploma indorsed)	San Francisco.
Esterie, Albert M. (diploma indorsed)	San Francisco.
Emerson, Ed. W.	San Francisco.
Edwards, James W.	San Francisco.
Eisen, Edward G.	San Francisco.
Fitzpatrick, W. E. (diploma indorsed)	San Francisco.
Fox, H. B.	San Francisco.
Ferguson, T. H.	San Francisco.
Fox, J. M.	San Francisco.
Fuller, C. H.	San Francisco.
Gore, Arthur	San Francisco.
Gorton, C. D.	San Francisco.
Goe, Samuel E.	San Francisco.
Goddard, C. L.	San Francisco.
Gonzales, I. T.	San Francisco.
Gabbs, M. F.	San Francisco.
Griswold, W. F.	San Francisco.
Graves, U. L.	San Francisco.
Gunzburger, B. M.	San Francisco.
Griffiths, Allen	San Francisco.
George, E.	San Francisco.
Gibson, Fred. W.	San Francisco.
Gibson, John W. (diploma indorsed)	San Francisco.
Gambetz, Milton R. (examined by Board)	San Francisco.
Haselhurst, A. O.	San Francisco.
Hofleng, Fred.	San Francisco.
Hardcastle, George	San Francisco.
Hill, Alfred S.	San Francisco.
Hibbard, C. W.	San Francisco.
Heino, Julius	San Francisco.
Hatch, J. H.	San Francisco.
Hill, Albert B.	San Francisco.
Hill, Thomas L.	San Francisco.
Hill, Walter B.	San Francisco.
Hill, Alfred L.	San Francisco.
Haines, B. W.	San Francisco.

* Deceased.

Harrison, E. L.	San Francisco.
Hastings, Robert	San Francisco.
Hackett, F. M.	San Francisco.
Iglehart, T. M.	San Francisco.
Jacobs, B. R.	San Francisco.
Jennin, E. L.	San Francisco.
Kauffung, Louis H.	San Francisco.
Knox, Henry E.	San Francisco.
King, L. A.	San Francisco.
Kemp, Van De, Fred.	San Francisco.
King, William Z.	San Francisco.
Knowlton, John S.	San Francisco.
Lord, F. F.	San Francisco.
Lord, Mrs. C. B.	San Francisco.
Lord, Charles C.	San Francisco.
Hutchinson, J. E.	San Francisco.
Lubbock, W. C.	San Francisco.
Lee, L. A.	San Francisco.
Lundborg, J. A. W.	San Francisco.
Lightbody, H.	San Francisco.
Leek, George W.	San Francisco.
Leek, J. G.	San Francisco.
Locke, C. W.	San Francisco.
Lawrence, George O.	San Francisco.
Lightcap, Samuel E.	San Francisco.
Morffew, Thomas	San Francisco.
Moulton, Calvin R.	San Francisco.
Myers, Oliver P.	San Francisco.
Monroe, George	San Francisco.
Maunder, Philip.	San Francisco.
Moore, C.	San Francisco.
Morton, Henry R.	San Francisco.
McKenzie, A. W.	San Francisco.
Matthews, James	San Francisco.
Massie, H. C.	San Francisco.
Malech, T. G.	San Francisco.
Morton, H. R., Jr.	San Francisco.
Mancilla, Maguel	San Francisco.
Mendes, Charles	San Francisco.
Materne, Charles F. (diploma indorsed)	San Francisco.
Maldonado, E. (diploma indorsed)	San Francisco.
McDonald, G. W. (diploma indorsed)	San Francisco.
Newmann, L.	San Francisco.
Newton, Stanley D. (examined by Board)	San Francisco.
Payne, Eugene (diploma indorsed)	San Francisco.
Pearce, T. B.	San Francisco.
Price, W. E.	San Francisco.
Park, E. E.	San Francisco.
Peel, Jonathan	San Francisco.
Perry, Chas. A.	San Francisco.
Proll, R. B.	San Francisco.
Post, Chas. E. (diploma indorsed)	San Francisco.
Porter, John S.	San Francisco.
Pratt, Frank E.	San Francisco.
Pancoast, Franklin	San Francisco.
Pugsley, Franklin (diploma indorsed)	San Francisco.
Pring, Ernest (examined by Board)	San Francisco.
Ralls, R. F.	San Francisco.
Rea, C. F.	San Francisco.
Rinebold, J. J.	San Francisco.
Remington, J. W.	San Francisco.
Rau, Henry	San Francisco.
Rietzke, Gustav	San Francisco.
Rankin, J. H.	San Francisco.
Richards, C. W.	San Francisco.
Richards, W. H.	San Francisco.
Robinson, W. H.	San Francisco.
Roberts, S. H.	San Francisco.
Rowand, Joseph T. (diploma indorsed)	San Francisco.
Sichel, G. W. (diploma indorsed)	San Francisco.
Schultz, E. H.	San Francisco.
Sublett, W. H.	San Francisco.
Schwarzschild, F.	San Francisco.
Salmon, William	San Francisco.
Switzer, Anna	San Francisco.
Spear, Thomas R.	San Francisco.

Sylvester, H.	San Francisco.
Smith, M. E.	San Francisco.
Shaw, H. H. (examined by Board)	San Francisco.
Shoaff, Walter R. (examined by Board)	San Francisco.
Schneider, Joseph	San Francisco.
Simms, Chas.	San Francisco.
Sloat, Chas. F.	San Francisco.
Sichell, Max	San Francisco.
Swain, E. M.	San Francisco.
Stevens, Henry H.	San Francisco.
Sanger, I.	San Francisco.
Spence, Stuart J.	San Francisco.
Sheets, H. Clay	San Francisco.
Sandford, L. N.	San Francisco.
Stanley, W. H.	San Francisco.
Sullivan, Maurice J.	San Francisco.
Savage, Henry	San Francisco.
Sullivan, J. P.	San Francisco.
Turner, H. C.	San Francisco.
Turner, W. A.	San Francisco.
Trueman, Herbert G.	San Francisco.
Thrall, H. H.	San Francisco.
Twist, J. F.	San Francisco.
Thraillkill, Wm. O.	San Francisco.
Teague, L. A.	San Francisco.
Teague, Frederic	San Francisco.
Trunpour, J. P.	San Francisco.
Urmy, H. N.	San Francisco.
Verrinder, A. E. (diploma indorsed)	San Francisco.
Verrinder, R. T. (diploma indorsed)	San Francisco.
Van Orden, L., Jr.	San Francisco.
Vidaver, N. J.	San Francisco.
Van Crombrughe, A.	San Francisco.
Winter, J. W.	San Francisco.
Winter, W. G.	San Francisco.
Wilbert, J. L.*	San Francisco.
Wood, Andrew B.	San Francisco.
Wilson, C. H.	San Francisco.
Warner, A.	San Francisco.
Wade, Thomas*	San Francisco.
Whitcomb, N. T.	San Francisco.
Young, H. G.	San Francisco.
Younger, W. J.	San Francisco.
Younger, Ed. A.	San Francisco.

SONOMA COUNTY.

Anderson, David P. (examined by Board)	Santa Rosa.
Biddle, E. W.	Healdsburg.
Caldwell, C. L.	Santa Rosa.
Coomes, A. M.	Cloverdale.
Cook, William E.	Healdsburg.
Cooper, George W.	Santa Rosa.
Cole, Hiram	Santa Rosa.
Campbell, R. E. (examined by Board)	Healdsburg.
Caldwell, F. M.	Santa Rosa.
Eshbach, D. M.	Sonoma.
Galbraith, M. D.	Cloverdale.
Huebner, O. C.	Healdsburg.
Jones, Harold McKean (diploma indorsed)	Cloverdale.
Krueger, O. F.	Healdsburg.
Lovejoy, F. E.	Petaluma.
Lovejoy, George E.	Petaluma.
McLain, A. F.	Santa Rosa.
Perkins, C. O.	Petaluma.
Powell, John D. (diploma indorsed)	Healdsburg.
Reed, Charles W.	Santa Rosa.
Savage, C. W.	Santa Rosa.
Saul, George M.	Santa Rosa.
Stone, John T.	Santa Rosa.
Wiley, J. N.	Santa Rosa.

SUTTER COUNTY.

Moore, J. E.	Live Oak.
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* Deceased.

TRINITY COUNTY.

Spratt, C. W. Weaverville.

TUOLUMNE COUNTY.

Menendez, J. A. Sonora.
Menendez, Henry Sonora.

TEHAMA COUNTY.

Barrett, C. J. Red Bluff.
Fuller, F. N. Red Bluff.
Sehorn, W. A. Red Bluff.

TULARE COUNTY.

Asay, J. L. Visalia.
Asay, C. E. Visalia.
Boone, N. J. (diploma indorsed) Traver.
Cooper, E. M. Visalia.
Hunsaker, G. W. Tulare.
Key, T. B. Tulare.
Martin, Todd Tulare.

VENTURA COUNTY.

Badgley, A. Ventura.
Hedrick, Lyman Ventura.
Stewart, S. L. Ventura.
Staire, J. M. (diploma indorsed) Ventura.
Staire, H. M. (diploma indorsed) Ventura.
Sloane, Jas. H. (examined by Board) Ventura.

YOLO COUNTY.

Dick, A. N. Woodland.
Holmes, L. B. Woodland.
Hodgen, I. N. Woodland.
Hodgen, J. D. (diploma indorsed) Woodland.
Musselman, D. Madison.

YUBA COUNTY.

Boyd, Geo. H. Marysville.
Jewett, Stanley Marysville.
Smith, J. B. M. Marysville.
Walker, Albin J. Hansonville.
Walker, John T. Hansonville.

BIENNIAL REPORT

OF THE

STATE BOARD OF FISH COMMISSIONERS

OF THE

STATE OF CALIFORNIA,

FOR THE

YEARS 1888-1890.

COMMISSIONERS.

JOSEPH ROUTIER, Sacramento, President.

J. DOWNEY HARVEY, San Francisco, Secretary.

CHARLES JOSSELYN, San Francisco.



SACRAMENTO:

STATE OFFICE, : : : : : J. D. YOUNG, SUPT. STATE PRINTING.

1890.

REPORT.

To *Hon. R. W. WATERMAN, Governor of the State of California:*

SIR: The undersigned have the honor hereby to present their Second Biennial Report relative to the fish industry of the State.

The fish interests of the State are in a comparatively satisfactory condition.

The spring run of salmon for 1889 was fair, as was also that of 1890. The fall run of 1889 showed improvement over that of the previous years. The supply of shad continues to be large. Carp is found in large quantities in all the waters of the State; they are not a desirable food fish. Sturgeon continues to diminish every year, owing to the indiscriminate slaughter waged upon them by Chinese fishermen. Special efforts have been made to stock the rivers and lakes with the various species of trout. In these efforts we have been quite successful, as evidenced by the astonishment of many at finding them abundant in streams to which they had for years been strangers. This will appear more pointedly in the report of the Superintendent of Hatcheries. Black bass have been distributed in different places throughout the State. The increase of this fish at Crystal Springs, San Mateo County, has been rapid, and is the source from which our supply has been obtained. Catfish have developed into popular favor, and are plentiful in most of the waters of the State.

SEALS AND SEA LIONS.

We respectfully repeat the recommendations of the last report of the Fish Commissioners, as follows: These aquatic animals are a serious detriment to the fish interests of the State. They sit at the entrance of Golden Gate as royal toll gatherers, and take the lion's share of the schools of the finny tribe as they pass from the broad Pacific into the bay of San Francisco, preparatory to an ascent of our rivers. In the opinion of the Commission, they are great destroyers of the salmon. They appear to be more numerous at Seal Rock and around the entrance of San Francisco Bay than in former years, owing, no doubt, to the fact that the fishermen have driven them with their nets from Suisun and San Pablo Bays. They not only guard the entrance of San Francisco Bay, but are found at the entrance of Monterey, Bolenas, Point Arena, Tomales, and Shoalwater Bays. This and former Commissions and the public press have repeatedly invoked legislative action to prevent the immense destruction of fish constantly going on and increasing by these worthless animals. It is highly important to our citizens to have the food of which they are so deprived, and in their behalf remedial legislation is again urgently demanded.

STEAM LAUNCH.

The steam launch "Governor Stoneman," constructed at a cost of over \$4,000, was found useless for the service for which it was intended.

In the interest of economy and an efficient service, and in response to an Act of the Legislature, we disposed of it for the sum of \$1,100, which money is in the State Treasury for the purchase of other boats suited to economical use in quest of persons engaged in illegal fishing.

HATCHERIES.

The Shebley Hatchery has been abandoned, the supply of water being inadequate. The Hat Creek Hatchery has been abandoned, and it is the desire of the Commission that the Legislature provide for its removal to a more desirable location. The Sisson Hatchery has been a great success. A new hatchery has also been constructed at Lake Tahoe. The details relating to all these hatcheries, will be found in the report of the Superintendent of Hatcheries. The United States Fish Commission have furnished us with all the eyed salmon eggs it is possible for us to handle, for which they are entitled to the thanks of every person in the State.

FISH LADDERS.

Fish ladders have been built in most places where necessary, but many are not properly built, are not kept in repair, and are to a considerable extent inefficient, owing to the fact that the Board has no appropriation from which to defray the expenses of construction.

The last Legislature appropriated \$500 for the removal of obstructions at Salmon Falls, in the American River. This has been successfully accomplished.

LICENSES.

The amount received from sales of licenses to fishermen for last year exceeds the sum received for sales of the previous year. The receipts were as follows:

LICENSES FOR THE YEAR 1888.

Received of Controller.	Class.	Value of Each.	On Hand March 31, 1889.	Sold during the Year.	Total Value of Licenses Sold.	Commissions Allowed for Collecting.	Net Amount due the State.
700	A	\$5 00	208	492	\$2,485 00	\$300 01	\$2,184 99
100	B	7 50	93	7	52 50	7 87	44 63
100	C	10 00	83	17	170 00	25 50	144 50
100	D	12 50	77	23	287 50	43 12	244 38
5	E	15 00	4	1	15 00	2 25	12 75
Total, 1,005	-----	-----	465	540	\$3,010 00	\$378 75	\$2,631 25

LICENSES FOR THE YEAR 1889.

Received of Controller.	Class.	Value of Each.	On Hand March 31, 1890.	Sold during the Year.	Total Value of Licenses Sold.	Commissions Allowed for Collecting.	Net Amount due the State.
775	A	\$5 00	19	756	\$3,780 00	\$356 25	\$3,423 75
50	B	7 50	35	15	112 50	16 87	95 63
50	C	10 00	28	22	220 00	31 50	188 50
52	D	12 50	26	26	325 00	48 75	276 25
1	E	15 00	-----	1	15 00	2 25	12 75
Total, 928	-----	-----	108	820	\$4,452 50	\$455 62	\$3,996 88

APPROPRIATIONS.

The last Legislature appropriated \$20,000, one half of which was to be used for support in each of the forty-first and forty-second fiscal years. The expenditures made will be found in the proper place herein. The sum of \$2,000 was appropriated for the purchase and importation of certain game birds into the State. The Board has so far been unable to obtain most of the species named in the Act, but hopes yet to secure them. Some quantities of Chinese quail and Oregon pheasants have been purchased and distributed in accessible localities. These quail have propagated already fairly well, and supplies can soon be had from them for other localities, as required. The \$2,000 appropriated for the prosecution of violators of the fish laws has been expended, and was insufficient to defray the costs of prosecutions.

The Oregon pheasants can only be had by sending agents there to buy them in person, and they cannot be had at less than about \$15 per pair. So far only forty pairs have been secured. The cost of the Chinese quail is about \$20 per hundred. We have obtained about one thousand three hundred so far. These have been distributed pretty widely throughout the State. The amount so far drawn from the appropriations for game birds is \$1,500, of which up to this time the sum of \$1,020 has been expended.

COUNTY GOVERNMENT BILL.

Section 38 of the Act of March 16, 1889, amending the County Government Act, authorizing the Boards of Supervisors to fix the size of fish net meshes, should be repealed. If one county has one law, and another county another one, it renders it impossible for violators of the law to be punished, and the law thereby becomes inoperative. One county has already fixed the size of meshes for fishing at four inches, instead of the seven and one half inches prescribed by the statutes.

If the Legislature should agree with the recommendations of the Superintendent of Hatcheries for the creation of more hatcheries, the appropriation he asks for, or more, may be necessary. We recommend an appropriation of \$10,000 for patrol purposes. If illegal fishing is to be prohibited, men enough to patrol the rivers must be had; otherwise, illegal fishing will go on as usual with impunity.

FOOD FISHES.

In its proper place herein will be found an interesting and instructive paper on the food fishes of this State from the pen of Dr. C. H. Eigenmann, who is regarded as authority upon that subject; also, a letter from Dr. H. W. Harkness, President of the California Academy of Sciences.

WIRE SCREENS FOR IRRIGATION DITCHES.

The millions upon millions of fish, large and small, that pass into the open heads of irrigating ditches, only to die when the water becomes exhausted, will decimate the fish supply faster than it can be restored from all the hatcheries in the State, in those localities where irrigation is largely in use. This has rendered necessary in some of the States the enactment of laws requiring the use of close-meshed wire screens at

the entrance to all irrigating ditches in the State. What is necessary elsewhere, is indispensable here, and we recommend the passage of a law here similar to the following law in the State of Wyoming upon this subject:

Any person or persons, corporation or corporations owning in whole or in part, or leasing, operating, or having in charge any mill-race, irrigating ditch, or canal, taking or receiving its water from any river, creek, or stream in this territory in which fish has been placed or may exist, shall put or cause to be placed and maintained over the inlet of such ditch, canal, or mill-race a wire screen of such construction, fineness, strength, or quality as shall prevent any such fish from entering such ditch, canal, or mill race, when requested to do so by the Fish Commissioner.

Any person or persons, corporation or corporations violating the provisions of the preceding section, or who shall neglect or refuse to provide, put up, and maintain such screen, in accordance with the provisions of the preceding section, shall be guilty of a misdemeanor, and on conviction thereof shall be punished by a fine of not less than ten dollars, and not more than one hundred dollars, or by imprisonment in the county jail not exceeding thirty days for each offense; *provided*, that the continuance by any person of such neglect or refusal from day to day after notification in writing shall constitute a separate and distinct offense for each and every day of the continuance of such neglect or refusal; *provided further*, that no offense shall be committed by reason of such screens not over the inlet of any ditch, canal, or mill-race when water is not entering the same.

LAWS RECOMMENDED.

We desire to renew the recommendations contained in our last biennial report, to wit:

"The close season for salmon should be enlarged. It is now between the thirtieth day of August and the first day of October. It should be from the first day of August to the first day of October. The Commission earnestly recommends legislative remedial action to prevent the destruction of fish by seals and sea lions. We further recommend that the License Act be amended so as to declare the penalty for its violation. We also recommend that a law be passed providing for the confiscation and destruction of all unlawful nets, seines, and traps of any description found in use. The possession of fish out of season, or fish of under size, should be made a misdemeanor. Some legislation should be had regarding the taking of immature fish, and defining 'immature fish,' at least so far as it concerns salmon, shad, sturgeon, and trout."

DEER.

We recommend that the killing of deer be prohibited absolutely for the next two years, and also the having in possession the skin of any deer for the same time. This is rendered necessary because of the great loss of these animals during the extremely severe weather of the last two winters, as well as their indiscriminate slaughter in some localities by hunters who defy the law with impunity. With these men, nothing save the heavy hand of the law can be made effective.

JOSEPH ROUTIER,
J. DOWNEY HARVEY,
Fish Commissioners.

EXPENDITURES

During the Fortieth Fiscal Year, ending June 30, 1889, chargeable against the Appropriation for the Restoration and Preservation of Fish in the waters of the State.

Balance on hand July 1, 1888	\$304 93
Warrants issued during fortieth fiscal year for services performed during the thirty-ninth fiscal year:	

By Expenditures.

Warrant No. 468—To O. P. Egbert, supplies	\$13 55
No. 469—To W. E. Elliott, salary	66 50
No. 470—To John Howard, salary and expenses	56 50
No. 471—To Goldberg, Bowen & Co., supplies	37 06
	<hr/>
	173 61
Balance on hand from thirty-ninth year	\$131 32
By appropriation (Statutes of California, page 215)	3,750 00

By Expenditures.

Warrant No. 2226—To J. P. Dalton, salary and expenses	\$240 71
No. 3085—To J. P. Dalton, salary and expenses	714 90
No. 3086—To O. P. Egbert, supplies	39 15
No. 3088—To Goldberg, Bowen & Co., supplies	12 38
No. 3089—To J. G. Woodbury, salary and expenses	173 70
No. 3090—To W. E. Elliott, salary	60 00
No. 3091—To John Howard, salary	50 00
No. 3092—To Charles Wenzinger, salary	50 00
No. 5519—To John P. Dalton, salary and expenses	310 00
No. 5561—To O. P. Egbert, supplies	14 30
No. 5562—To Goldberg, Bowen & Co., supplies	15 52
No. 6170—To John P. Dalton, salary and expenses	177 50
No. 8271—To J. G. Woodbury, salary and expenses	156 96
No. 12294—To John P. Dalton, salary and expenses	216 70
No. 12295—To John P. Dalton, salary and expenses	159 85
No. 12296—To John A. Richardson, salary	75 00
No. 12297—To E. W. Hunt, salary	45 00
No. 12298—To J. G. Woodbury, salary and expenses	241 83
No. 12299—To J. G. Woodbury, salary and expenses	270 38
No. 12300—To Osborn & Alexander, supplies	20 90
No. 12301—To O. P. Egbert, supplies	7 15
No. 12302—To W. H. Schnittger, salary	10 00
No. 15455—To John P. Dalton, salary and expenses	208 00
No. 15456—To John P. Dalton, salary and expenses	221 10
No. 15777—To Osborn & Alexander, supplies	24 10
No. 15778—To J. F. Curley, salary	25 00
No. 16000—To Osborn & Alexander, supplies	21 45
No. 16797—To R. Lauritzen, supplies	5 51
No. 16798—To Osborn & Alexander, supplies	14 45
No. 16799—To O. P. Egbert, supplies	25 15
No. 16800—To Goldberg, Bowen & Co., supplies	32 15
No. 17054—To James McKenna, salary	5 00
No. 18249—To R. Lauritzen, supplies	11 30
No. 18267—To Osborn & Alexander, supplies	14 10
No. 18268—To Goldberg, Bowen & Co., supplies	24 60
No. 18269—To O. P. Egbert, supplies	37 40
No. 18270—To John P. Dalton, salary and expenses	126 55
No. 1286—To O. P. Egbert, supplies (paid in 41st fiscal year)	23 53
	<hr/>
Totals	\$3,881 32 \$3,881 32

EXPENDITURES

During the Fortieth Fiscal Year, ending June 30, 1889, chargeable against the Appropriation for the Support and Maintenance of State Hatcheries.

Unexpended balance on hand July 1, 1888.....		\$851 93
Warrants issued during the fortieth fiscal year, for services performed during the thirty-ninth fiscal year:		
Warrant No. 208—To J. Shebley, salary and expenses.....	\$69 20	
No. 472—To W. H. Schnittger, salary and expenses.....	60 00	
No. 473—To Stevens & McKinny, supplies.....	200 00	
No. 1628—To J. C. Frazier, labor.....	93 34	
		422 54
Balance on hand from thirty-ninth year.....		\$429 39
To appropriation (Statutes of California, 1887, page 215).....		3,750 00
Warrant No. 1195—To Henry Woodson, supplies.....	\$101 30	
No. 1197—To J. C. Frazier, salary.....	100 00	
No. 1196—To Stevens & McKinney, supplies.....	400 00	
No. 1629—To W. H. Shebley, expenses.....	63 35	
No. 1630—To J. Shebley, salary.....	93 00	
No. 3087—To W. H. Shebley, salary.....	81 30	
No. 3093—To John Hurley, rent.....	20 00	
No. 3094—To J. C. Frazier, salary.....	118 82	
No. 3095—To W. H. Schnittger, salary.....	60 00	
No. 5267—To J. G. Woodbury, salary and expenses.....	298 18	
No. 5533—To J. F. Wyman, supplies.....	8 12	
No. 5535—To J. C. Frazier, supplies.....	48 66	
No. 5534—To R. M. Watson, supplies.....	8 00	
No. 5558—To Sisson Lumber Company, supplies.....	364 71	
No. 5559—To Sisson, Crocker & Co., supplies.....	97 32	
No. 5560—To J. M. Bowles, Jr., supplies.....	42 50	
No. 6163—To J. G. Woodbury, salary and supplies.....	57 70	
No. 6164—To W. C. Gifford, labor.....	50 00	
No. 6165—To Whittier, Fuller & Co., supplies.....	13 00	
No. 6166—To J. H. Sisson, supplies.....	58 65	
No. 6167—To W. H. Schnittger, salary.....	5 00	
No. 6168—To Holbrook, Merrill & Stetson, supplies.....	17 51	
No. 6169—To Sisson Lumber Company, supplies.....	17 47	
No. 8895—To L. Stone, labor.....	375 00	
No. 8896—To Sisson, Crocker & Co., supplies.....	48 00	
No. 8897—To Fred. C. Boyce, labor.....	50 00	
No. 8898—To E. W. Hunt, salary.....	55 65	
No. 8899—To Mount Shasta Manufacturing Co., supplies.....	71 40	
No. 8900—To W. C. Gifford, labor.....	37 50	
No. 8901—To F. C. Boyce, labor.....	45 00	
No. 8902—To Robert Radcliff, freight.....	20 00	
No. 8903—To J. A. Richardson, traveling expenses.....	85 65	
No. 8904—To J. H. Sisson, supplies.....	41 30	
No. 8905—To J. C. Frazier, supplies.....	112 66	
No. 8906—To J. G. Woodbury, salary and supplies.....	169 41	
No. 12292—To Edson & Co., supplies.....	10 65	
No. 12293—To F. C. Boyce, labor.....	25 00	
No. 16783—To E. W. Hunt, labor.....	41 65	
No. 16784—To W. H. Schnittger, labor.....	10 00	
No. 17015—To J. G. Woodbury, salary and supplies.....	266 41	
No. 17053—To J. A. Richardson, salary and supplies.....	78 15	
No. 18250—To J. G. Woodbury, salary and supplies.....	465 33	
No. 18251—To W. H. Schnittger, salary and supplies.....	10 00	
Balance on hand July 1, 1889.....	36 04	
Totals.....	\$4,179 39	\$4,179 39

EXPENDITURES.

During the Fortieth Fiscal Year, ending June 30, 1889, chargeable against the Fish Commission Fund.

By balance on hand, July 1, 1888.....	\$2,253 82
Receipts into the fund, fortieth fiscal year.....	3,444 23

By Expenditures.

Warrant No. 206—To T. W. O'Neil, supplies.....	\$240 90
No. 207—To L. L. Lewis, supplies.....	3 10
No. 474—To Carquinez Packing Company, supplies.....	12 50
No. 475—To John Ferrin, expenses.....	121 30
No. 476—To W. H. Ewing, labor.....	36 66
No. 477—To Stevens & Co., supplies.....	59 22
No. 478—To J. L. Sutton, salary.....	100 00
No. 479—To Bauer & Steffan, supplies.....	7 65
No. 480—To E. J. Upham & Co., supplies.....	6 83
No. 481—To G. A. Hastings, supplies.....	25 50
No. 482—To John S. Benn, traveling expenses.....	10 50
No. 483—To John F. Taggart, salary.....	50 00
No. 484—To Charles Josselyn, money advanced.....	38 62
No. 485—To J. J. Smith, labor.....	50 00
No. 486—To John P. Dalton, salary and expenses.....	305 75
No. 487—To James V. Geary, salary.....	110 66
No. 488—To J. L. Sutton, labor.....	50 00
No. 489—To John Ferrin, salary.....	209 79
No. 597—To T. J. Sherwood, expenses.....	98 70
No. 1032—To James Clyne, repairs.....	5 50
No. 1033—To C. D. Dagnol, rent of sloop.....	152 66
No. 1187—To J. Routier, traveling expenses.....	30 10
No. 2997—To L. L. Lewis, supplies.....	3 10
No. 2999—To Goldberg, Bowen & Co., supplies.....	9 80
No. 2998—To Mohr & Yoerk, supplies.....	4 95
No. 3000—To O. P. Egbert, supplies.....	11 75
No. 3001—To John P. Dalton, expenses.....	100 50
No. 3002—To Cooper's book store, supplies.....	8 50
No. 4590—To W. A. Duncombe, rent of sloop.....	41 57
No. 6162—To J. G. Woodbury, traveling expenses.....	208 91
No. 6550—To T. J. Sherwood, traveling expenses.....	251 15
No. 8891—To John P. Dalton, traveling expenses.....	151 95
No. 8892—To John P. Dalton, supplies.....	15 00
No. 8893—To Matt. Coffey, salary.....	35 00
No. 8894—To Joseph Routier, expenses.....	91 40
No. 11747—To Lauritzen & Frates, supplies.....	54 04
No. 15459—To J. G. Woodbury, salary and expenses.....	239 39
No. 15460—To J. G. Woodbury, salary and expenses.....	320 04
No. 15728—To E. W. Hunt, salary.....	45 00
No. 15729—To E. W. Hunt, salary.....	45 00
No. 15775—To J. A. Richardson, salary.....	75 00
No. 15776—To J. A. Richardson, salary.....	75 00
No. 16650—To Edward Reilly, salary.....	91 90
No. 16771—To T. W. O'Neil, painting.....	196 00
No. 16791—To C. Folger, salary.....	50 00
No. 16792—To M. J. O'Reilly, salary.....	1 50
No. 16793—To John P. Dalton, salary and expenses.....	368 10
No. 16794—To C. Elliott, salary.....	44 85
No. 16795—To G. J. Sculley, salary.....	41 50
No. 16796—To W. E. Elliot, salary.....	72 00
No. 17017—To M. J. O'Reilly, salary.....	60 00
No. 17055—To W. T. Robinson, expenses.....	37 00
No. 17056—To San Francisco "Daily Report," advertising.....	40 00
No. 18252—To M. J. O'Reilly, salary.....	30 00
No. 18253—To J. C. Frazier, salary.....	107 20
No. 18254—To John F. Moody, supplies.....	69 10
No. 18255—To C. C. Folger, salary.....	33 20
No. 18256—To G. J. Sculley, salary.....	50 00
No. 18257—To Truckee Lumber Company, supplies.....	113 16
No. 18258—To Carson and Tahoe Lumber Company, supplies.....	185 16
No. 18259—To J. G. Woodbury.....	110 00
No. 18260—To E. W. Hunt, salary, etc.....	49 50
No. 18261—To C. Elliot, salary, etc.....	50 00
No. 18262—To J. P. Dalton, salary, etc.....	100 00

Amounts carried forward \$5,393 16

Amounts brought forward.....	\$5,393 16	\$5,698 05
No. 18263—To Thomas H. Powers, salary, etc.....	40 00	
No. 18264—To Westgate, Dozier & Co., supplies.....	27 34	
No. 18265—To W. E. Elliot, salary.....	68 00	
No. 18266—To Edward Reilly, salary.....	150 50	
Balance on hand July 1, 1889.....	19 05	
Totals.....	\$5,698 05	\$5,698 05

EXPENDITURES

During the Forty-first Fiscal Year, ending June 30, 1890, chargeable against the Appropriation for the Restoration and Preservation of Fish in the waters of the State.

To appropriation (Statutes of California, 1889, page 438)..... \$5,000 00

By Expenditures.

Warrant No. 1280—To John P. Dalton, salary and supplies.....	\$62 50	
No. 1284—To Frank Anaya, salary and expenses.....	77 50	
No. 1285—To M. J. O'Reilly, salary.....	2 00	
No. 1287—To Henry Mathey, expenses.....	122 10	
No. 2219—To Edward Reilly, salary and expenses.....	193 85	
No. 2478—To T. W. O'Neil, painting.....	70 00	
No. 2486—To M. J. O'Reilly, salary.....	30 00	
No. 2487—To R. Lauritzen, supplies.....	20 33	
No. 2488—To Osborn & Alexander, supplies.....	14 45	
No. 2489—To Goldberg, Bowen & Co., supplies.....	12 38	
No. 2490—To O. P. Egbert, supplies.....	37 05	
No. 2491—To John P. Dalton, supplies.....	67 34	
No. 2492—To John P. Dalton, salary.....	100 00	
No. 2493—To John P. Dalton, rent.....	10 00	
No. 2494—To G. J. Sculley, salary.....	50 00	
No. 2495—To W. Lamonte, salary.....	28 00	
No. 2496—To John Howard, salary.....	36 65	
No. 2497—To W. E. Elliott, salary.....	60 00	
No. 2498—To C. B. Elliott, salary.....	50 00	
No. 2499—To C. Higgins, salary.....	26 00	
No. 3375—To J. M. Sullivan, salary and expenses.....	172 44	
No. 3376—To J. M. Sullivan, salary and expenses.....	193 20	
No. 3377—To Edward Reilly, salary and expenses.....	203 20	
No. 3378—To J. W. Hughes, professional services.....	75 00	
No. 3379—To M. J. O'Reilly, salary.....	30 00	
No. 3380—To M. J. O'Reilly, expenses.....	5 75	
No. 3765—To John P. Dalton, salary.....	100 00	
No. 3766—To John P. Dalton, expenses.....	10 00	
No. 3767—To John P. Dalton, expenses.....	124 77	
No. 3874—To Frank Anaya, expenses.....	271 15	
No. 3875—To J. Downey Harvey, expenses.....	14 00	
No. 3876—To Joseph Routier, traveling expenses.....	108 65	
No. 3877—To O. P. Egbert, supplies.....	37 60	
No. 3878—To R. Lauritzen, supplies.....	17 80	
No. 3879—To Osborn & Alexander, supplies.....	14 45	
No. 3880—To W. Lamont, salary.....	40 00	
No. 3881—To W. Markham, salary.....	50 00	
No. 3882—To G. J. Sculley, salary.....	50 00	
No. 3883—To W. E. Elliot, salary.....	60 00	
No. 4997—To Jno. T. Curley, expenses.....	77 10	
No. 5048—To M. J. O'Reilly, salary and expenses.....	33 10	
No. 5138—To John P. Dalton, expenses.....	119 25	
No. 5139—To O. P. Egbert, supplies.....	24 25	
No. 5140—To Osborn & Alexander, supplies.....	14 45	
No. 5141—To J. Downey Harvey, expenses.....	5 00	
No. 5142—To W. Lamont, salary.....	40 00	
No. 5143—To H. H. Briggs, salary.....	100 00	
No. 5144—To G. J. Sculley, salary.....	50 00	
No. 5145—To A. Cassidy, supplies.....	46 66	
No. 5146—To W. Markham, salary.....	50 00	
No. 5147—To W. E. Elliott, salary.....	60 00	
No. 5148—To John P. Dalton, salary.....	100 00	
No. 5149—To J. F. Curley, salary.....	66 30	
Amounts carried forward.....	\$3,434 27	\$5,000 00

Amounts brought forward.....	\$3,434 27	\$5,000 00
No. 5150—To Joseph Routier, expenses.....	31 00	
No. 5151—To F. P. Callundan, salary and expenses.....	114 65	
No. 5126—To M. J. O'Reilly, expenses.....	11 45	
No. 6473—To J. M. Sullivan, expenses.....	108 05	
No. 6474—To E. Reilly, salary.....	100 00	
No. 6475—To E. Reilly, salary.....	152 05	
No. 6505—To M. J. O'Reilly, salary and expenses.....	32 20	
No. 6749—To J. Downey Harvey, expenses.....	5 00	
No. 6750—To Joseph Routier, expenses.....	147 35	
No. 6751—To C. H. Bogart, expenses.....	16 70	
No. 6752—To C. E. Grunsky, salary.....	11 10	
No. 6753—To F. Anaya, salary.....	62 80	
No. 6754—To F. P. Callundan, salary.....	100 00	
No. 6755—To H. F. Williams, salary.....	50 00	
No. 6756—To John F. Curley, expenses.....	109 60	
No. 6757—To James H. Carothers, expenses.....	10 00	
No. 6758—To John P. Dalton, expenses.....	24 41	
No. 7437—To C. W. Thorrold, salary.....	50 00	
No. 7438—To F. P. Callundan, salary and expenses.....	132 25	
No. 7439—To F. Anaya, salary and expenses.....	78 45	
No. 7930—To M. J. O'Reilly, salary and expenses.....	32 55	
No. 8354—To E. Reilly, salary.....	100 00	
No. 8407—To F. Anaya, salary and expenses.....	12 70	
No. 8408—To J. Downey Harvey, expenses.....	5 00	
No. 8409—To Joseph Routier, expenses.....	30 00	
No. 11314—To M. J. O'Reilly, salary.....	30 00	
No. 13169—Wells, Fargo & Co., expressage.....	6 15	
Balance on hand June 30, 1890.....	2 27	
Totals.....	\$5,000 00	\$5,000 00

EXPENDITURES

During the Forty-first Fiscal Year, ending June 30, 1890, chargeable against the Appropriation for the Support and Maintenance of State Hatcheries.

Unexpended balance on hand July 1, 1889.....		\$36 04
Warrants issued during the forty-first fiscal year for services performed during the fortieth fiscal year:		
Warrant No. 1296—To W. H. Schnittger, labor.....	\$5 00	
No. 1297—To Jones & Givens, supplies.....	30 75	
		35 75
Unexpended balance fortieth fiscal year.....		\$0 29
By appropriation (Statutes of California, 1889, page 438).....		5,000 00

By Expenditures.

Warrant No. 2500—To W. H. Schnittger, salary.....	\$5 00	
No. 2501—To J. A. Richardson, salary and expenses.....	78 50	
No. 2502—To J. C. Frazier, salary and expenses.....	100 50	
No. 2503—To E. W. Hunt, salary and expenses.....	61 50	
No. 2504—To Truckee Lumber Co., supplies.....	33 00	
No. 2505—To Fireman's Fund Insurance Co., insurance.....	15 00	
No. 3884—To J. G. Woodbury, salary and expenses.....	357 12	
No. 3885—To J. G. Woodbury, salary and expenses.....	141 50	
No. 3886—To W. H. Schnittger, salary.....	5 00	
No. 3887—To J. C. Frazier, salary and expenses.....	50 50	
No. 3888—To E. W. Hunt, salary and expenses.....	63 50	
No. 3889—To J. A. Todman, labor.....	15 00	
No. 3890—To John Hurley, rent.....	20 00	
No. 5131—To Carson and Tahoe Lumber Co., supplies.....	73 51	
No. 5132—To Whittier, Fuller & Co., supplies.....	10 00	
No. 5133—To E. W. Hunt, salary and expenses.....	37 75	
No. 5134—To J. C. Frazier, salary.....	50 00	
No. 5135—To J. G. Woodbury, salary and expenses.....	205 35	
No. 5136—To A. J. Bayley, labor.....	21 50	
No. 5137—To Truckee Lumber Co., supplies.....	46 40	
No. 6759—To Wm. Boyle, labor.....	135 00	
No. 6760—To L. C. Nelson, supplies.....	15 00	
No. 6761—To E. W. Hunt, salary and expenses.....	79 15	
Amounts carried forward.....	\$1,619 78	\$5,000 29

Amounts brought forward.....	\$1,619 78	\$5,000 29
No. 6762—To Andrews & Barr, supplies.....	15 00	
No. 6763—To J. H. Sisson, supplies.....	31 10	
No. 6764—To J. G. Woodbury, salary and expenses.....	200 40	
No. 6765—To W. H. Schnittger, salary.....	10 00	
No. 6766—To Truckee Lumber Co., supplies.....	45 25	
No. 6767—To J. A. Richardson, salary and expenses.....	297 50	
No. 7931—To Liebenbaum Bros., supplies.....	38 95	
No. 7932—To J. M. Short, supplies.....	48 91	
No. 8405—To Sisson, Crocker & Co., supplies.....	43 61	
No. 8406—To W. H. Schnittger, salary.....	5 00	
No. 8410—To John F. Moody, supplies.....	46 66	
No. 9021—To Fireman's Fund Insurance Co., insurance.....	31 80	
No. 9022—To J. G. Woodbury, salary and expenses.....	152 25	
No. 9023—To Truckee Lumber Co., supplies.....	23 58	
No. 9024—To John F. Moody, supplies.....	88 42	
No. 9025—To J. A. Richardson, salary and expenses.....	163 90	
No. 9026—To J. C. Frazier, salary and expenses.....	66 33	
No. 9027—To E. W. Hunt, salary.....	75 00	
No. 9558—To Justinian Caire, supplies.....	49 01	
No. 9559—To W. F. Bowers & Co., supplies.....	10 00	
No. 9560—To W. H. Himes, supplies.....	6 00	
No. 9561—To L. C. Nelson, supplies.....	16 00	
No. 9562—To J. A. Richardson, salary.....	75 00	
No. 9563—To J. G. Woodbury, salary and expenses.....	144 60	
No. 9564—To E. W. Hunt, salary and expenses.....	78 00	
No. 10507—To J. A. Richardson, salary.....	75 00	
No. 10508—To J. G. Woodbury, salary and expenses.....	133 35	
No. 10509—To W. H. Schnittger, salary.....	5 00	
No. 10510—To L. Stone, salary and expenses.....	204 50	
No. 10659—To E. W. Hunt, salary.....	75 00	
No. 11575—To J. A. Richardson, salary.....	75 00	
No. 11576—To W. H. Schnittger, salary.....	5 00	
No. 11577—To J. G. Woodbury, salary and expenses.....	135 80	
No. 11578—To E. W. Hunt, salary.....	75 00	
No. 11579—To Sisson, Crocker & Co., supplies.....	95 91	
No. 11580—To The Bancroft Co., supplies.....	5 75	
No. 11581—To Southern Pacific Co., freight.....	22 85	
No. 11582—To Neville & Co., supplies.....	41 06	
No. 11583—To F. E. Drew, labor.....	25 00	
No. 12556—To E. W. Hunt, salary and expenses.....	92 90	
No. 12589—To J. G. Woodbury, salary and expenses.....	180 85	
No. 12590—To J. A. Richardson, salary and expenses.....	77 90	
No. 12591—To W. T. Bowers, expenses.....	5 50	
No. 12592—To Edson Brothers, supplies.....	61 50	
No. 12593—To W. H. Himes, labor.....	5 00	
No. 12594—To Liebenbaum Brothers, supplies.....	92 61	
No. 12595—To W. H. Schnittger, salary.....	10 00	
Balance on hand July 1, 1890.....	117 76	
Totals.....	\$5,000 29	\$5,000 29

EXPENDITURES

During the Forty-first Fiscal Year, ending June 30, 1890, chargeable against the Fish Commission Fund.

By balance on hand July 1, 1889.....	\$19 05
Receipts into the fund, forty-first fiscal year.....	5,309 17

By Expenditures.

Warrant No. 1272—To W. E. Elliott, salary.....	\$60 00
No. 1273—To John Howard, salary.....	50 00
No. 1274—To G. J. Sculley, salary.....	50 00
No. 1275—To Thomas H. Powers, salary.....	40 00
No. 1276—To John P. Dalton, salary.....	100 00
No. 1277—To John P. Dalton, expenses.....	71 91
No. 1278—To Charles Elliott, salary.....	50 00
No. 1279—To John F. Moody, salary.....	20 00
No. 1283—To Frank Anaya, salary.....	23 10
Amounts carried forward.....	\$465 01
	\$5,328 22

Amounts brought forward	\$465 01	\$5,328 22
No. 1288—To E. W. Hunt, supplies and salary	73 25	
No. 1289—To J. A. Richardson, salary	45 70	
No. 1290—To E. Reilly, salary	153 00	
No. 1291—To M. J. O'Reilly, salary	30 00	
No. 1292—To R. Lauritzen, supplies	13 65	
No. 1293—To Osborn & Alexander, supplies	14 45	
No. 1294—To Goldberg, Bowen & Co., supplies	14 00	
No. 1295—To J. C. Frazier, salary and supplies	104 50	
No. 2716—To J. G. Woodbury, salary and supplies	609 72	
No. 2965—To J. Downey Harvey, traveling expenses	192 00	
No. 4452—To C. Higgins, labor	95 00	
No. 5826—To J. Downey Harvey, traveling expenses	413 00	
No. 6768—To H. G. Miller, balance due on contract	16 40	
No. 6769—To "Sacramento Bee," advertising	24 00	
No. 7208—To John P. Dalton, supplies	5 25	
No. 7209—To John F. Moody, expenses	42 45	
No. 7210—To R. Radcliff, expenses	100 00	
No. 8369—To H. Dutard, rent of tug	49 50	
No. 8370—To F. P. Callundan, salary and expenses	207 25	
No. 9154—To E. Reilly, salary	100 00	
No. 9158—To M. J. O'Reilly, salary and expenses	31 40	
No. 9520—To Joseph Routier, traveling expenses	5 00	
No. 9521—To J. Downey Harvey, traveling expenses	5 00	
No. 9522—To F. P. Callundan, salary and expenses	199 50	
No. 9523—To Thomas Tumstead, salary	100 00	
No. 9524—To W. J. McDowell, expenses	16 80	
No. 9525—To J. F. Curley, expenses	7 25	
No. 9526—To J. F. Curley, expenses	28 50	
No. 10501—To F. P. Callundan, salary and expenses	109 00	
No. 10502—To J. D. Ennis, salary	100 00	
No. 10503—To M. J. O'Reilly, salary and expenses	33 85	
No. 11617—To Joseph Routier, traveling expenses	34 00	
No. 11618—To Joseph Routier, traveling expenses	30 00	
No. 11619—To J. D. Harvey, traveling expenses	5 00	
No. 11620—To J. D. Harvey, traveling expenses	5 00	
No. 11621—To F. P. Callundan, salary and expenses	130 50	
No. 11622—To Whittier, Fuller & Co., supplies	8 00	
No. 11623—To John D. Ennis, salary	100 00	
No. 12553—To Joseph Routier, traveling expenses	30 00	
No. 12554—To F. P. Callundan, salary and expenses	201 70	
No. 12555—To M. J. O'Reilly, salary and expenses	31 90	
No. 12599—To J. D. Harvey, traveling expenses	5 00	
No. 12600—To John M. Bailhache, expenses	6 00	
No. 12601—To John D. Ennis, salary	100 00	
No. 13184—To T. E. Sullivan, labor	22 50	
No. 13185—To W. H. Shebley, salary	52 25	
No. 13400—To M. J. O'Reilly, salary	30 00	
No. 13401—To E. D. Stewart, labor	68 55	
No. 13402—To S. F. Earl, labor	97 50	
No. 13403—To John D. Ennis, salary	130 50	
No. 13404—To John F. Curley, boat hire	30 00	
No. 13405—To J. Downey Harvey, traveling expenses	5 00	
No. 13406—To F. P. Callundan, salary and expenses	121 40	
No. 13407—To Joseph Routier, traveling expenses	30 00	
No. 13869—To T. W. O'Neil, labor	177 80	
No. 13885—To M. J. O'Reilly, salary	30 00	
No. 13886—To E. W. Hunt, salary and expenses	107 35	
No. 14045—To Joseph Routier, traveling expenses	30 00	
No. 14092—To John D. Ennis, salary and expenses	121 50	
No. 14093—To F. P. Callundan, salary and expenses	137 45	
Balance on hand July 1, 1890	44 89	
Totals	\$5,328 22	\$5,328 22

EXPENDITURES

During the Forty-first Fiscal Year, ending June 30, 1890, Chargeable Against the Appropriation for the Importation and Propagation of Game Birds.

To appropriation (Statutes of California, 1889, page 304)----- \$2,000 00

By Expenditures.

Warrant No. 8404—To “American Field” Publishing Company,		
advertising -----	\$3 84	
No. 11313—To State Board of Fish Commissioners -----	500 00	
Balance on hand July 1, 1890-----	1,496 16	
Total -----	\$2,000 00	\$2,000 00

REPORT OF J. G. WOODBURY,

Superintendent of Hatcheries and the Restoration of Fishes, embracing the Operations carried out during the period between August 1, 1888, and October 1, 1890.

SAN FRANCISCO, October 1, 1890.

To the honorable the Board of Fish Commissioners of the State of California:

GENTLEMEN: After being appointed Superintendent by your honorable Board on the first day of August, 1888, I visited Lake Tahoe, where Mr. Frazier was in charge of hatching the six hundred thousand eyed trout eggs, which had been contracted for by your honorable Board.

These eggs were being hatched in a rented building, small and windowless, and consequently giving insufficient light to distinctly observe the condition of the fish in the troughs, which is a very essential matter, for cleanliness is a cardinal virtue in the successful hatching and rearing of trout, and an abundance of light is necessary to perceive what one is doing.

The supply of water to the hatchery on a hot day was very precarious, diminishing in quantity in the middle of the day, and with cattle tramping up the ground around the springs, and the rotten condition of the wooden pipes which conveyed the water a long way to the hatchery, made it a very uncertain business in hatching trout, and kept the attendant in constant apprehension of some mishap.

It seemed a reproach to the California Fish Commission to be compelled to do its work of stocking Lakes Tahoe, Donner, Independence, Webber, and the mountain streams in the vicinity with fish under such adverse conditions as these. And if it is thought of sufficient importance that these waters be stocked with trout, it should be done from year to year, continuously, for intermittent work of this kind—stocking these waters for a year or two and then skipping a year—is work almost thrown away.

It occurred to me that the State should select some favorable point for shipping, and build its own hatchery, commodious and well appointed, with a certainty of plenty of cold spring water, and make Lake Tahoe a trout-hatching station as a distributing point for all these mountain waters.

Mr. Frazier reported that he shipped the trout, resulting from these six hundred thousand eggs, in 1888, to the localities and in the numbers given in the tables which accompany my report to your honorable Board.

THE SISSON SALMON HATCHERY, 1888.

The Board of Fish Commissioners had received word from Mr. Livingston Stone, who was in charge of the United States salmon hatchery on the McCloud River, that he would deliver at the McCloud River Station, free of charge to the California Fish Commission, four million eyed salmon eggs for stocking streams in this State.

To take advantage of this generous offer on the part of the United States Fish Commission, I immediately, on my return from Lake Tahoe, started to look up a place on the headwaters of the Sacramento River for the erection of an extensive hatchery to accommodate this large number of eggs when hatched out. The necessary conditions for hatching out so many eggs, and the large trough space for nurseries to keep in good condition the young fish until they are old enough to ship, are a good sized stream of pure, cold spring water with no possibility of floods washing out the ditches or flumes that take the water to the hatchery, and with a right at all times to control a sufficient quantity of water for all purposes. It was also essential that the hatchery should be at a convenient distance from the railroad station and a telegraph office for convenience of shipping the fish to distant points; also, a point on the river, whence it was, owing to its accessibility, the cheapest to reach by wagon road the greatest number of the branches of the headwaters of the Sacramento River. For the shipping of even one million of young fish to distant points and properly distributing them over the nursery grounds is a costly and tedious operation.

After examining the Sacramento River for the best place in my opinion, I selected, with the consent of Mr. J. H. Sisson, a site in the field back of his barn about three quarters of a mile from the railroad station in the town of Sisson. The spot selected is well drained, sunny, and sheltered from the prevailing winds, and with an open view of old Mount Shasta.

The water for the hatchery comes from a large spring, about one and a half miles distant, which forms the extreme head of one of the branches of the Sacramento River. Its volume is sufficient to run a sawmill, and its temperature is 46 degrees Fahrenheit at all seasons. The main ditch from this spring runs near by the hatchery. It seemed to be an ideal place for a hatchery, and also most conveniently situated for distributing the fish to the proper nursing grounds. In the two years of experience since the hatcher was built, in hatching the millions of trout and salmon eggs, the expectations have been more than fulfilled. The waters seem to have a marvelous virtue in maintaining the health of the young fish as well as having a sparkling taste to the palate. The hatchery was built in expeditious haste to prepare it in one month for the reception of the expected salmon eggs from the September run of fish at the McCloud River Hatchery.

The hatchery is a plain building forty feet by sixty feet, strongly built, with a half pitch roof which has resisted the tremendous snows of the past winter. It has a capacity for forty-four hatching troughs sixteen feet long and sixteen inches wide. The troughs are made of one and one half-inch dressed pine, and are painted with three coats of asphalt varnish to prevent the wood from growing a fungus, which would destroy the young fish. A head trough sixteen inches square, prepared in the same way, runs the entire length of the building, sixty feet, which furnishes water through gates to the hatching troughs. A large filtering tank outside, and a flume about one hundred yards long, connect the hatchery with the main ditch. The hatchery has a system of troughs beneath the floor to carry off the water from all the hatching troughs to a waste ditch outside.

A room fourteen by sixteen feet, for the men to live in, was finished in the upper part of the hatchery.



SALMON HATCHERY AT SISSON, CALIF.



INTERIOR OF HATCHERY AT SISSON.



TROUT HATCHERY AT LAKE TAHOE, CAL.



INTERIOR OF HATCHERY AT LAKE TAHOE.



Each trough has screens and covers to protect the eggs from the light. One hundred and fifty wire hatching baskets were made and painted with asphalt varnish. It seemed to be an endless task to get this large hatchery finished. We worked every day in the week, and most of the nights until ten and eleven o'clock, painting the troughs, making the baskets, covers, etc., and fixing up the living-room. This work continued long after the first lot of eggs were received.

This hatchery is well equipped and is also one of the largest in the country. It has a third larger capacity than the United States Salmon Hatchery on the McCloud River, where fourteen million salmon eggs have been eyed at one time.

Before shipping the eggs, Mr. George B. Williams, Superintendent of the station at Baird, where the United States Salmon Hatchery is located, sent word notifying us of the date of shipment. The salmon eggs are hauled to Smithson, on the Sacramento River, where one of our men meets them with ice to be put in the packages to keep them cool. The State Fish Commission pays all expenses incurred on the shipment of eggs from the McCloud River to Sisson. The United States Fish Commission generously donates the eggs, eyed and packed, ready for shipment, from the Government Hatchery on the McCloud River.

We received at the Sisson Hatchery, from the September run, 1888, about eight hundred thousand salmon eggs, instead of the three or four million which were expected to be taken during that month. This caused a great surprise and disappointment, for ten years ago during the same month twelve million eggs were easily taken. This shows what havoc the fishermen with their nets are making in the lower Sacramento River.

This year, 1888, the United States Fish Commission renewed their operations on the McCloud River, that station having been abandoned during the previous five years. The eight hundred thousand eggs received from them were hatched out at Sisson, and kept till old enough to be planted, and during the month of December were distributed in branches of the Sacramento River, the West Fork, Salloway Creek, Big Spring Creek, Cold Creek, and in the main Sacramento below the eighteenth crossing.

The Government Station on the McCloud River did so poorly in the August and September run that they continued their efforts for the taking of more spawn during October and November. This had been unusual in former years, because they got all they required in the first run. Usually the McCloud River rises in volume during the fall rains, which makes it very difficult for the men to keep their traps in the river (as, for instance, during last year, 1889, when everything was swept away).

We received at the Sisson Hatchery from the October and November run, 1888, about two million two hundred thousand salmon eggs. The eggs arrived during the last of December and part of January, 1889. These were hatched out in fine condition, and kept till old enough to ship, and were distributed, in March and April, in the same streams as those of the September run; and, also, down the Sacramento River as far as Big Castle Creek. In shipping these fish down the river the Southern Pacific Railroad Company very generously loaned us the use of a hand car, and gave the right of way on their road. Without this accommodation it would have been almost impossible to have distributed the fish properly. With the good water at the Sisson Hatchery,

and the care they received from the attendants, Mr. James A. Richardson and Mr. E. W. Hunt, I venture to say that no fish were ever hatched out with a less percentage of loss.

In the fall of 1888 a contract was made with Mr. Livingston Stone, at the United States Hatchery on the McCloud River, to hatch out from the eyed eggs which the United States Fish Commission donated to the California Fish Commission, five hundred thousand young salmon at 75 cents per thousand, and distribute them in the McCloud River.

The United States Fish Commission also very generously hatched out and planted in the McCloud River the same season one million young salmon at its own expense; and, also, in 1889 the United States Commission planted eighty-four thousand young salmon in the McCloud River. More would have been planted there that year by the United States Commission, if the floods had not washed out the traps and thus prevented the taking of any more breeding salmon.

Mr. J. H. Sisson generously gave two lots in the addition to the town of Sisson, each thirty feet by one hundred and forty feet, for the use of the hatchery, for \$1 a year with the free use of the water; and, also, he signed a bond to give the Fish Commission permission to remove the buildings, or else buy the land at the market price, with a perpetual free use of all the water from Big Springs Creek which the hatchery should need. These lots should belong to the Fish Commission, with one or two more of the adjoining lots on the south included.

Mr. Dunn, the Controller, claims that under the present law the Fish Commission has no right to purchase land for its hatcheries. I would suggest that your honorable Board petition the next Legislature for a law to be passed granting the Fish Commission the right to purchase land for its hatcheries when a desirable locality has been fixed upon.

If the hatcheries do any good in maintaining the normal supply of food fish by restocking the streams, and if it is advisable to operate the hatcheries for a few years, it is equally important to maintain them for all time. The State consequently should own and operate its own hatcheries as a permanent institution.

As soon as the young salmon were all distributed (April, 1889), the hatchery was closed at Sisson for the season of 1888-9.

LAKE TAHOE.

Operations were now immediately begun at Lake Tahoe. The fishermen said that the month of May was too late a date on which to take spawn at Taylor Creek, which was considered the best place for getting the most spawn. But we managed by careful seining to get about one hundred and fifty thousand trout eggs here, which were put into the old private hatchery at Tahoe City. Taylor Creek is at the upper end of the lake, about twenty miles from the hatchery. Work was then begun on traps to be put in the creeks near their mouths. We had to wait for the lumber to be sawed out at Truckee and hauled over what was, at that time, a bad road. This delayed us somewhat, but as soon as possible we had traps in Meek's, Phipps', Blackwood, and Ward Creeks. Trout run up these creeks later than they do in Taylor Creek, for the reason that these streams are fed by melting snow water which is cold and often roily, while Taylor Creek has its source in Fallen Leaf Lake, which modifies the temperature of the small streams running into it.

In Meek's Creek the trout had been running some time before we put in our traps, and Chinamen had been catching them by torchlight, so the fishermen said. The run dwindled down very fast and we caught but few trout, but the traps were full of suckers.

In Phipps' Creek, which is later than Meek's, the trout had not begun to run when the traps were set; the water was very low. We caught here but very few fish during the season. Trout used to run up this stream in large numbers, but a trap had been kept here for years past to catch the fish, principally for the market, and I could not learn if any young trout had been planted in the stream to restock it in place of those which had been prevented from going up to spawn.

The next creek, Blackwood, is a larger and later stream for trout; in this creek we caught the greater bulk of our eggs. We had to continue trapping in this creek a long time—into August, in fact—when the water became very low.

In Ward Creek but very few trout were caught.

We also seined at the Incline in Nevada, by permission of Fish Commissioner Mills. Here formerly trout used to be caught in great numbers by the same fishermen who worked this season for us. This year, however, but few fish could be seined, while cart loads of sawdust were drawn in by the seine. The two streams which empty into the lake at this place were very low.

We took this season, 1889, about one million two hundred thousand eggs. It was expensive to keep the traps in for so long a time with men to attend them. Spawn taking had been continued through three months, while in an ordinary season, and to get two million five hundred thousand eggs, it was expected that the work of spawning would be done in six weeks. The cause given why so few fish could be caught was that it had been an open winter around the lake, scarcely any snow had fallen, and the water consequently in all the streams was very low. It is the melting of the deep snows in the mountains that cause the streams around Lake Tahoe to rise in April, May, and June. All the traps and seining grounds were at distant points from the hatchery. The eggs had to be brought around the lake on the steamer or in rowboats.

In the first part of this report mention is made of the old private hatchery, where the Commission was having trout hatched, of its inadequate qualities, of the insufficiency of water for hatching purposes, and the insecurity of supplying pipes. It seemed necessary that the Fish Commission of this State should have a hatchery of its own, sufficiently large to take care of fifteen hundred thousand trout, with a good supply of cold spring water.

A State hatchery at Lake Tahoe would be the most central, as a point of distribution, for the great Tahoe, Donner, Independence, and Webber Lakes, as well as the Truckee River and its branches, and also the headwaters of the different forks of the American River, and rivers farther south, rising at the summit of the Sierra Nevada Mountains—these latter being stocked with Eastern trout alone, while all the former could be stocked with Lake Tahoe trout, Eastern trout, and the land-locked salmon.

Lake Tahoe is of considerable importance as a resort for health and pleasure by tourists from the East, as well as large numbers of our own people. Boating and fishing are among its pastimes. Travel here must increase as our State becomes more thickly populated. All these waters

were well stocked with trout in former years, when the Truckee River was open to the passage of trout from Tahoe to Pyramid and Echo Lakes. The magnificent spawning grounds of the whole length of the Truckee River were then used by the trout to deposit their eggs. In almost countless numbers the trout made their way from Pyramid and Echo Lakes to Lake Tahoe. But since the dams have been built on this river no trout can get up to Lake Tahoe, and of late years trout have been diminishing above the lower dam very fast.

Taking all these things into consideration, I thought it best to build at Lake Tahoe a new State hatchery.

THE NEW STATE HATCHERY AT LAKE TAHOE.

Soon after arriving at the lake, and while the other work of seining and trapping was in operation, I began to look up a place to build, with the necessary conveniences for hatching and shipping. A spot near Tahoe City was selected, where there were some fine springs near the shore of the lake and quite close to the steamer landing.

No one could tell me where the owner could be found, or even what his name was. But in the hurry for a safe place to hatch the spawn which was being taken (the first few lots were placed to the old private hatchery, which was hired for the purpose), I had determined to build a temporary hatchery on the place selected, and trust to luck in finding its owner and buying it of him. So I ordered lumber from the mill at Glenbrook for the building, and had the hatching troughs made at the factory in Truckee. Wire for the hatching baskets was ordered from San Francisco. A man was put to work getting out sills for the foundation of the permanent hatchery. Other men were set to digging ditches to bring in water from the springs to a new reservoir to be made near the lake shore. As soon as the lumber and troughs arrived, a temporary roof was put up. Some of the troughs were painted and prepared for the eggs. After the troughs were in place, and the flume to the head trough finished, and the water was running in the hatching troughs, we brought the eggs from the old hatchery to our temporary new one. We felt much relieved now, for we could take care of the eggs as fast as they came in, and had the eggs which were in the old hatchery in a safe place—the old rotten pipe had already burst several times, and we had been harassed with fear of losing the eggs.

At this point of our work I started for San Francisco to find the owner of the place on which I wished to build the new hatchery. After considerable trouble and delay, I found the owner of the springs, and after making a bargain at a fair price for the land, and a guarantee to give me a month to search the title, I returned to Tahoe. We at once began work on the new hatchery, laying a strong foundation with heavy sills to bear up the weight of water and heavy winter snows.

The building is twenty-four feet by forty-two feet, strongly built, with a half pitch roof. It has seventeen windows, which give abundance of light. The plan of the hatching troughs is like those at the Sisson Hatchery, with twenty-four troughs twelve feet long, and sixteen inches wide—with head trough and a large settling tank outside connecting with a flume, which brings the water down for about two hundred yards from the springs.

As soon as the building was ready and part of the troughs had been

placed in position, we transferred the baskets of eggs and young fish from the temporary hatchery to the new building; the remaining troughs were then put in place.

The troughs are well made, of sugar pine, and painted with two coats of asphalt varnish. A good supply of new hatching baskets, painted with varnish, and covers made for all the troughs.

The hatchery is well appointed, strongly built, and roomy.

It was necessary to do all this work as quickly as possible, and, in doing it, there were many vexatious delays. No supplies for the work could be obtained at Tahoe, except lumber in the tree. The shakes for the roof had to be made, the sills had to be hewn from the tree, and, as no teams get in there until the loggers arrive, we were much delayed in hauling the sills and shakes. The lumber had to be sawed and brought over on scows from Glenbrook, then rafted and got inshore as close as possible, then thrown into the water, pushed ashore, dragged out and packed up to the building.

Lake Tahoe is a very difficult place to collect spawn. The traps are all at distant points. In going to one on the steamer it takes all the next day to get back, as the steamer has to go round the lake to get home. To go to the traps off the regular route of the steamer rowboats must be used, which takes half a day to go the round trip. On many days the lake is so rough that it is not possible to go in a boat. We had a very busy summer's work; all hands were employed every Sunday, as well as through the week days.

Of the thirteen acres which were bought for the hatchery, the greater part consisted of wet land through which the springs flowed. This naturally produced the best feeding ground for cows. As soon as the grass began to spring up, about two hundred head of cattle were driven into the neighborhood of Tahoe City, and they made our springs their headquarters. They would wade in all through that soft ground among the alders, tramping it up, and the water in the hatchery would be black with mud, covering the eggs and thickly settling on the bottom of the troughs.

We had to endure this annoyance for weeks, leaving our work in the day time to drive them off, and watching the place till ten o'clock at night, till the wire for fencing ordered from Sacramento arrived, the posts split, the holes dug, and fence put up to protect ourselves from their raids.

Later in the season, when most of the fish were shipped and more leisure obtained, a line ditch was dug from the reservoir to the main spring, and a strong flume of two-inch planks was laid and covered up. This was to keep the water from getting heated upon a hot day. Also, a new house for quarters for the men was built, sixteen feet by twenty-four feet, with three rooms, boarded and battened outside and close boarded inside, making a strong, well built, and warm house. A new stove and housekeeping articles were bought. Our men did their own cooking after the first of August, the Commission furnishing the supplies, thus saving large board bills at the hotel.

After I had made a bargain for the land, your honorable Board sent me word that Mr. Dunn, the Controller, said that he had no authority to issue a warrant to pay for land for the Fish Commission. As the buildings were already begun, and as there was no other course to pursue but go ahead, I wrote your honorable Board that I would buy the land myself and rent it to the Commission at a nominal sum.

After the spawn was all taken, about the first of August, I sent Mr. Richardson to the city to begin shipping Black bass from the Spring Valley Water Company's lakes.

Mr. Hunt stopped at the hatchery till most of the young trout were shipped in the latter part of September. He then went to the Sisson Hatchery to receive the first lot of salmon eggs from the United States Hatchery on the McCloud River. I had already been up there (August), and painted the troughs with asphalt varnish, and turned on the water to soak them in readiness for the September run of salmon eggs.

I stopped at the Tahoe Hatchery, working on the house and flume most of the time until both were finished.

The fish being all shipped, the house and flume finished, several cords of wood got into the house for the next spring work, the hatchery was closed up on the last of October, 1889.

The distribution of this season's trout (1889) at Lake Tahoe will be seen on reference to the tables.

BLACK BASS.

Seth Green brought the first Black bass to California. These were brought out at the expense of a sportsmen's club, and placed in Temescal Lake, near Oakland. A few waters have been stocked from the young of these bass.

The second lot of Black bass was brought out by B. B. Redding, for the California Fish Commission, and planted in the Crystal Springs reservoir, near San Mateo, with the permission of the Spring Valley Water Company, for breeding purposes, with the privilege of shipping the progeny of these fish to stock the waters of this State.

The Black bass is a splendid game fish, fighting bravely and fiercely for its liberty, many anglers claiming that there is more sport fishing for them than for trout. They are also a delicious fish to eat. They will do well in almost any of our fresh waters, either rivers or lakes; they multiply very rapidly, and require no aid from artificial propagation. When waters are once stocked with them, they are to stay, if fair play is shown them. They should be protected for several years till the original stock has had a chance to breed two or three times, and afterwards no fishing should be allowed for several months during the spawning season. Like any other live stock, if breeders enough are not reserved, the stock will become diminished.

The Black bass, like Striped bass are ravenous feeders; they will devour the Sticklebacks, which almost all fish avoid on account of their spines.

Not many of our public waters have been as yet stocked with these fish. They should be, for when once they become stocked with Black bass it is done for all time.

Clear Lake, in Lake County, will make, when it has been well stocked with Black bass, a splendid and extensive resort for anglers. There is an inferior fish there which breeds in myriads, which will give grand feasting for Black bass.

It was thought to be high time that some systematic work should begin to stock all the waters of our State that are proper to plant with bass: Clear Lake, the Blue Lakes, Tulare Lake, Goose Lake, and many smaller lakes in our State, and perhaps the great Klamath Lakes. Probably it

would not be well to plant Black bass in Tahoe, Donner, Independence, or Webber Lakes.

The rivers Kern, King, and so forth, are admirably adapted for the home of this fish. I am not over confident that it would be safe for the young salmon to have the Black bass planted in either the Sacramento or San Joaquin Rivers.

The young salmon make the Sacramento River their highway from the nursery grounds in the McCloud and upper Sacramento Rivers to the ocean, and they would have to run the gauntlet of the Black bass if the latter were planted there. But the perch and the Sacramento River pike, which have always been there, would also be salmon eaters, if they could catch them. The question remains: Would the Black bass be any more destructive than their first cousin, the perch? At any rate, in time these fish will find their way into these rivers, clandestinely by private parties, if not done so openly by the Fish Commission. Russian River is, I understand, at present well stocked with Black bass.

Many applications have been made for Black bass to stock waters in different parts of the State. They have to be caught for shipment with hook and line. If they swallow the hook it is liable to injure them, and cause them to die while kept in confinement waiting for shipment, or on the journey to be planted.

When fish are shipped to private waters, the expenses of the journey, transportation, railroad fares, hotel bills, etc., are expected to be paid by those who make application for them. Fifty fish, such as would breed for the first time during the following spring, are sufficient to stock any reservoir or small lake. The number did not exceed twenty which were originally placed in Crystal Springs reservoir.

Mr. James A. Richardson, after leaving the Tahoe Hatchery, in August, 1889, began shipping the Black bass, making one trip to the waters near Oroville, for Senator Jones, one to Sweetwater reservoir, San Diego, and two shipments to Clear Lake. More shipments would have been made that year, but Mr. Richardson became seriously ill, and had to postpone the work.

SISSON HATCHERY, 1889-90.

The salmon hatching season opens about the latter part of September. Mr. E. W. Hunt, after leaving the Tahoe Hatchery, in September, 1889, went up to the Sisson Hatchery to receive the first consignment of salmon eggs from the United States Hatchery on the McCloud River. There were shipped of the August and September run nine hundred and seventy-four thousand salmon eggs, and of the later run in October and November, three hundred and fifty-five thousand salmon eggs. In all, for 1889 only one million three hundred and twenty-nine thousand eggs.

The reason why this small number of eggs (three hundred and fifty-five thousand) was received in the second run from the United States Hatchery, was because of the heavy early fall rains, which raised so great a flood in the McCloud River that it swept out all their traps, and put an end to all fishing for that season. This shows how important it is that the close season for salmon should be so definitely fixed that sufficient numbers of breeding salmon should reach the United States Hatchery in the month of September, so that a sufficient supply of eggs for artificial hatching could be caught at that time to supply the young for stocking the rivers of our State, and not depend upon the late fall

run, which is so uncertain on account of the liability to floods, which makes it impossible to secure the salmon.

The young fish from the first run of salmon eggs were compelled to be kept, on account of the furious snowstorms of the past winter, till in February and March, of 1890, and then distributed, the boys using snowshoes and hauling them out on handsleds. The second run was kept till March and April, and was distributed, same as the first lot, in the Sacramento River and its branches. Many difficulties had to be encountered this year, owing to the great snowstorm. For weeks there was almost continuous shoveling of snow, to keep it away from the windows of the hatchery, to obtain some light to enable the attendants to see to do their work.

The young fish had to be put on short rations during the great snow blockade, on account of the scarcity of meat.

EASTERN BROOK TROUT.

The Eastern Brook trout, with its brilliant scarlet spots, mottled green back and lower fins red and fringed with white, is one of the most beautiful fish in the world. It is gamey and has a delicate flavor.

Our first Board of Fish Commissioners thought they would be a valuable acquisition to our trout streams. They introduced the eggs of these fish from New Hampshire in 1876; these were hatched out and distributed from their first hatchery on the University grounds at Berkeley. They continued the introduction and hatching of these fish for several years. The fish were distributed in many hundreds of thousands into the streams of Alameda, Marin, San Mateo, Santa Cruz, Santa Clara, and Monterey Counties; also, in the high Sierra Mountains, above the falls of the Yosemite Valley, on the headwaters of the Yuba and North Fork of the American River, Prosser Creek, a branch of the Truckee River; also, in Cold Creek, at Sisson, a small branch of the headwaters of the Sacramento River. In all these short coast streams, which become warmer and diminished in volume as the summer advances, they have not reproduced themselves—at least, I cannot learn that any have been caught for a number of years past; but in all the high Sierra streams where these trout were planted, they can now be caught quite plentifully. The integrity of their characteristics in all their virgin beauty is maintained. A number of these fish were caught during the past summer in Blackwood Creek, Lake Tahoe.

About four years ago a few of these fish were planted in a small lake on the mountain side back of McKinney's place, Lake Tahoe. Last year Mr. McKinney told me that a number of Eastern trout had been caught in that little lake, one of which weighed three pounds. He said they were fierce fighters, and had a delicious flavor. Some of these Eastern trout have been caught thirty miles down the river from the place where they were first planted in the North Fork of the American River. It seems to me very probable that the Eastern Brook trout, as they become older and larger, will drop farther and farther down the main stream and ascend other branches to spawn, and, thus becoming acclimated, will gradually stock all the streams in the State accessible from the first stream in which they were planted. From the Tahoe Hatchery, Lake Tahoe: Fallen Leaf Lake and the streams which empty into these lakes, the numerous small lakes on the mountain sides, the

Middle and South Forks of the American River, as well as the headwaters of other rivers farther south; also, the North Yuba and Feather Rivers could be stocked with these Eastern Brook trout.

From the Sisson Hatchery, these trout could be planted in the headwaters and branches of the Upper Sacramento and McCloud Rivers, and also in the headwaters of the Trinity and Klamath Rivers.

It seemed to me to be such a public good that these trout should be systematically planted in all these mountain streams, so that anglers could catch these speckled beauties during their vacations for health and pleasure, that I asked of your honorable Board permission to buy one hundred thousand Eastern Brook trout eggs. They were shipped from Mr. Livingston Stone's trout hatchery, Charleston, N. H. These eggs were hatched out during the past winter at the Sisson Hatchery. From these eggs, which came about four thousand miles, we got about eighty thousand of fine, healthy trout; these were kept in the hatchery for several months waiting for the snow to melt so that the roads could be opened to the McCloud River and other places. As soon as these fish could be shipped, about thirty thousand were planted in spring brooks which feed the upper McCloud River, near the Horseshoe Bend at the eastern side of Mount Shasta. Twelve thousand were planted on the application of Senator Stanford in Deer Creek, a fine stream which rises in the Sierra Nevada Mountains and empties into the Sacramento River, near Vina. The balance of the trout were planted in the West Fork of the Sacramento River, and also in School House Spring and Kaiser's Creek, branches of the upper Sacramento River; also, in the headwaters of the Shasta River, Griffin's Springs, Wadsworth Springs, Big Springs, and in Shovel Creek, branches of the Klamath River. The Eastern Brook trout cannot but do well in all of these places, as there is plenty of food and the water is cold. I consider that it is worth all the expense and trouble many times over to have the famous McCloud River stocked with these fine fish. In order to get these waters well and permanently stocked with these fish, several years of continuous stocking should be done.

TROUT HATCHING AT SHOVEL CREEK, 1890.

There had been complaints because no trout had been planted in the vicinity of the bay of San Francisco during 1889, but as a food fish was of the first consideration, a hatchery large enough to accommodate the donation of salmon eggs from the United States Government had to be erected. The Tahoe Hatchery was built during the next spring and summer, and the season's work carried on there. This work was all done in hot haste, and, with shipping the Black bass, we had no time to spare. Our help was all engaged and the money getting short.

To ship trout from Tahoe to streams around the bay would take at least four days' time, and the trip is very expensive, nearly \$100 a trip.

These two large hatcheries, with appointments and quarters for the men, with the large number of salmon and trout distributed, were paid for solely from the regular appropriation.

To meet the wants of the anglers in having the streams stocked with trout, I began to prospect early in the winter of 1889 for a station where the Rainbow trout could be caught in sufficient numbers to make it an object to build a small hatchery, eye their eggs and then ship these eggs

to the Sisson Hatchery, hatch them out and from there ship the young fish to stock the streams of the State as well as possible.

The Shasta River, in Siskiyou County, had been famous for its great numbers of trout. I looked at that and made close inquiries, and found that but few trout run up that stream now in comparison to the great numbers that formerly did so. And no wonder, for the water has been taken out of that river for years, and from the famous springs which help to supply its volume of water, through open irrigating ditches, with no screens to keep the trout from being drawn in and distributed through the grass to die. A gentleman, who formerly owned a farm near Edgewood, told me that he had found fully thirty thousand dead young trout, which he discovered in holes after the water in his ditch had been turned off. This number is one instance. Now, taking the same ditch through the whole season and adding this to the other ditches in Shasta River Valley, and the numbers of trout destroyed in this way would amount up into the millions.

I also heard of the Shovel Creek, at the Klamath Hot Springs, as a wonderful trout stream. I visited that place, and received the generous permission of the Edson Brothers to trap that stream for trout spawn and establish a small hatchery on their grounds. I was told, however, that but few salmon and trout had made their appearance there during the preceding fall, on account of the dam which had been put in at Klamath City. It had been complained of, and a small fish ladder had been put in, large enough for a small stream, but a wee thing for such a roaring river as the Klamath, with its immense volume of water pouring through the sluiceways with such force that a trout could not stem the current. The fish ladder, with its minute quantity of water, was away at the end of the dam, next the bank, where only a straggling trout or salmon would find its entrance.

I felt discouraged at the prospect of finding a good place for a trout hatchery. The heavy storms drove me home, but as soon as the snow blockade was broken I went up to that region again, and found that the elements, although fierce, had been propitious to trout, which by instinct were compelled to seek the upper Klamath for spawning beds, for the great volume of water, higher than ever known before, had ripped out the dam at Klamath City, and the trout had an unobstructed highway.

I immediately began, early in March, 1890, fitting up a small building, which Mr. Edson loaned me, with hatching troughs flumed in the water, and began building traps for Shovel Creek. The hatching baskets for trout eggs had been built at the Sisson Hatchery during the winter in anticipation of using them there.

Shovel Creek is quite a large stream which empties into Klamath River, within the grounds of the Klamath Hot Springs Hotel. Many of the trout which were spawned would weigh two and one half pounds.

After getting the hatchery in working order and a few thousand trout spawn taken, leaving Mr. Richardson in charge, I went to the Sisson Hatchery and left Mr. Stewart in charge to distribute what salmon were left, to look after the Eastern trout which were being kept until the roads would be open to ship part of them to the McCloud River, and also to receive the trout eggs which were to be sent from the Shovel Creek Hatchery.

TAHOE HATCHERY, 1890.

I now proceeded, accompanied by Mr. Hunt, to Lake Tahoe to open the spring campaign there. The road not being open from Truckee, we had to go up by way of Carson.

On arriving at the hatchery, our house we found buried in snow—it had been twelve feet deep on a level, but in places the wind had drifted it to a great height. After putting new wings to the bag of the old seine, we hired the steamer *Tod Goodwin* to take our traps, seines, boats, bedding, and provisions up to the mouth of Taylor Creek, twenty miles at the uppermost end of the lake. The steamer also towed up the scow *Lillie Van*, which was already fitted up with rooms, stove, and cooking outfit. This scow we hauled into the stream: it was to be our home while seining in the lake at the mouth of the creek. The seine was hauled three times a night: once just after dark, again about midnight, and once again before daylight. Some of the nights were so cold that the seine would freeze stiff five minutes after it was hauled out of the water. A bonfire burned while hauling the seine, casting its light over the water; the boatmen could thus see what ground to go over in paying out the seine and rowing in.

They would catch at one haul from five to ten, fifteen, or twenty trout, a few times more and sometimes not any; and many nights the seine could not be hauled on account of the rough sea. A great many Suckers were caught, sometimes as many as three hundred pounds weight at a haul. Some Whitefish were also drawn in. The Suckers were so plump that it was thought they must be full of trout spawn; twelve were opened and not an egg was in their stomachs; but the Whitefish, although small, were full of trout eggs.

The seining continued here some time, till no more trout could be caught. Mr. Burton and I went up the creek to the dam, but we did not see half a dozen trout.

The trout we caught were nearly all ripe; only about seven hundred thousand trout eggs were got at this place. Mr. Burton and Mr. Sam Nichols, who had fished in the lake many years, had prophesied that we would get here all the spawn we wanted.

The seine was drawn through the spring and summer at Meek's Bay, Blackwood Creek, and at the Incline, in Nevada. Traps were put in at Meek's, Phipps', and Blackwood Creeks. The creeks were so high, especially on a hot day when the sun would melt the tremendous snows of the past winter which fell on the headwaters in the Sierra Nevada Mountains. The streams would rise in a tumultuous volume of icy, roily water, which made it very difficult to put in the traps; and after a trap had been put in Blackwood Creek, the water rose two feet over all, tearing the trap out. The trap was put in again, but it was a trying work for the boys: Hunt, Will and Joe Shebley, who, after working in that icy water all day, slept on the banks of the creek in their wet clothes. Fishing was continued up to about the last of July, when the traps were all taken out.

There is usually a large run of trout up Blackwood Creek in March. Some time after we got up there a gill net was set in the current outside the mouth of Blackwood Creek, and nineteen fish were caught, weighing over two hundred pounds—one weighing a little over sixteen pounds. These were towed behind a rowboat, tandem fashion, for about five

miles, by putting a line through the sides of their mouths and fastening it to a toggle of wood; these fish pulled back with the strength of a donkey; they were not ripe, and were put in the settling tank. On the following day, when Will was away on the steamer to Taylor Creek for spawn, six of these large fish were stolen.

The gill net was set every night afterwards for awhile, but the run was over and only a few more were caught. Some of the fish were spawned, and turned out about five thousand of fine looking eggs each.

The past winter was the hardest ever known here, and the snows the deepest. Those who lived at Tahoe said that it snowed almost continuously all the winter. The streams have been booming with icy water all the summer. For some cause but very few fish run up the streams. The fishermen said that the season was a month late, and that the fish would run up by and by; but it was not to be. They all said that the fish must have spawned in the lake. Lake Tahoe was as low as ever was known last fall, and since then it has risen about six feet, being about as high as ever was known; it has also been unusually rough this summer.

A new wharf has been built near the hatchery; a second-hand boat has been bought, and also a scow for seining and for shipping cans of fish. A great many tourists have visited the hatchery, and expressed their admiration of what they see outside of the hatchery as well as inside.

BLACK BASS, 1890.

About August first Will Shebley left the Tahoe Hatchery to go to San Francisco to begin shipping Black bass, leaving Mr. Hunt, who has had charge of the Tahoe Hatchery, with Joe Shebley to distribute the trout now on hand there. After the Tahoe Hatchery is closed for the season, Mr. Hunt will go below and help distribute the Black bass and trout from the Sisson Hatchery. Mr. Richardson will ship trout till the salmon hatching season opens, in the last of September, when he will be stationed at the Sisson Hatchery. The Black bass which we are catching now from San Andres reservoir are from six to nine inches long; these will probably spawn next spring. Seventy-five to one hundred of this size is all one man can conveniently and safely handle on a long journey.

This year, 1890, shipments have been made as follows: One to the Del Monte reservoirs, at Monterey, for the railroad company; one to the Blue Lakes, in Lake County; one to Clear Lake (two shipments were made to this large lake last year); one to the Pajaro River, near Sargent's Station; and one to a lake near San Luis Obispo.

Black bass distribution will continue this fall till as late as possible.

RAINBOW TROUT AT SHOVEL CREEK HATCHERY, 1890.

Trapping in Shovel Creek continued till about the first of July. The water was unusually high, on account of the deep snows on the mountains. About one million six hundred thousand eggs of the Rainbow trout were taken and eyed there; of these, one hundred and thirty thousand were hatched out and distributed in Shovel Creek—this was to give back the seed for the future from the harvest of eggs which we had gathered there.

One hundred thousand eggs were shipped to the North Pacific Game

and Fish Club, and were hatched out by Mr. A. V. La Motte, at his hatchery in Glen Ellen; and which, he writes me, were distributed in Sonoma and Robinson Creeks, in Sonoma County and Mendocino County, respectively. This club, by permission of your honorable Board, trapped Sonoma Creek last winter for spawning trout, and Mr. La Motte reports that fifteen thousand native trout were restored to that stream.

One hundred and fifty thousand eggs were shipped to Mr. Alex. Badlam and hatched out in his trout hatchery at Arcadia, near Mount St. Helena. These were—part of them—for his ponds, and the rest, Mr. Badlam writes me, were distributed in streams, as follows: In Sulphur Creek, near the Geysers, in Sonoma County; in Lokonoma Creek, Anderson's Creek, Grizzly Creek, and Bradford's Creek, in Lake County; in Bear Creek, near Arcadia, and Troutdale Creek, Napa County. Mr. Badlam trapped Bear Creek last winter for spawning trout (with permission of your honorable Board), and reports that he restored to that stream fifteen thousand native trout as the result.

Fifty thousand eggs were shipped to Mr. Knowles, who has a hatchery near Alma; these were hatched out all right, but by some mishap they did not do well. I shipped a second fifty thousand to him, with which he had good success. These were distributed: about twenty thousand in Bear Creek and Deer Creek, branches of the San Lorenzo Creek, in Santa Cruz County; the balance was divided between his own ponds and a branch of the Los Gatos Creek.

Fifty thousand eggs were shipped to the hatchery at the Hotel Del Monte; this lot did not do well through want of experience and the high temperature of the water, owing to its being so low in the reservoir from the main pipe having washed out last winter. I shipped a second fifty thousand eggs there; they hatched out, and, with more experience on the part of the attendants, did well. These have been distributed in their reservoir and in the Carmelo River.

The hatching out of these eggs sent to private hatcheries, their expressage from Shovel Creek, and the distribution of the young trout, has been done free of expense to the Commission. This saved to the Commission the cost of distribution of the young fish from the Sisson Hatchery, which would have been a large item, and was also the means of stocking many streams which would otherwise have been impossible this year.

I visited the Del Monte Hatchery several times, Mr. Knowles' hatchery twice, and Mr. Alex. Badlam's hatchery once, to give instructions.

Hon. A. R. Williams, Ramen Wilson, and a number of other gentlemen have made arrangements to build a trout hatchery at Webber Lake for the purpose of maintaining the supply of trout in that and Independence Lakes and in the streams in their vicinity.

The thanks of the Commission and of the people of the State are due these gentlemen for their unselfish interest and laudable efforts in behalf of the fishery interests of the State.

I am satisfied that the efforts of these gentlemen will meet with every success, and that they will at all times receive the encouragement and support of the Commission.

Fifty thousand of these Rainbow trout eggs were shipped to the State Hatchery, at Tahoe, on application of Commodore Todman; these were

hatched out and planted in the Truckee River below the dam at the outlet of Lake Tahoe.

The balance of the eggs, about one million, was shipped to the Sisson Hatchery; these eggs and the young fish did finely in the cold water at Sisson. They have been fed in the troughs for several months awaiting shipment.

After the eggs were all taken at Shovel Creek, Mr. Richardson began shipping these fish from Sisson for distribution, taking ten cans at a trip, and about three thousand fish in a can, or thirty thousand to each trip, which are as many as it is safe to handle on a trip in hot midsummer, the round journey averaging about eight hundred miles, and taking about three days' time.

A trip with this number has been made to Lagunitas Lake, Marin County, and to about five miles down the Lagunitas Creek, below the dam; also, to the following places: to Crystal Springs Reservoir, San Mateo County; to Alminitos Creek, near the New Almaden Mines; the Guadalupe Creek, Saratoga Creek, and to Smith Creek, near Mount Hamilton, a branch of the Calaveras Creek; to the Arroyo Mocho, twelve miles south of Livermore, and the Calaveras and the Alameda Creeks, near Sunol; to Monterey County, for branches of the Salinas River, near Salinas and Soledad; to Boulder Creek and other branches of the San Lorenzo Creek, in Santa Cruz County; to Almao for the Los Gatos Creek, in Santa Clara County; to the San Gregorio Creek, over the mountains from Redwood City; to Gilroy, for the Uvas Creek; to the Lagunitas or Paper Mill Creek; to Napa City, for branches of the Napa Creek; and to a small creek, near Santa Rosa, a branch of the Russian River.

Arrangements have been made to ship these trout to Dr. Smith, of Placerville, for the American River; also, to Judge McD. R. Venable, in San Luis Obispo County, for streams there; to the Sonoma Creek, Cache Creek, in Yolo County, and other places. We shall continue to ship these trout until their trough room will be needed for the salmon at Sisson, or until we are admonished to quit shipping to save funds for our winter and spring work. These which are not shipped to the central and southern parts of the State, will be planted in the Sacramento River. There have been already planted during August, 1890, in branches of the Sacramento, one hundred and fifteen thousand, distributed thus: West Fork, Sulloway's Creek, Cold Creek, School House Spring Creek, and near Peter Klink's place. The balance for the Sacramento will be distributed below the eighteenth crossing.

During both seasons of our work at Lake Tahoe, in 1889 and 1890, Commodore Todman has been exceedingly generous in his aid to advance the work of the Fish Commission by giving at all times free transportation on the steamer Tod Goodwin to all parts of the lake, shipping our racks for traps, fish cars, seines, towing the boats to the different streams, shipping our supplies, and also giving almost daily passage for the men in their traveling to the creeks where the traps were, for eggs, and in shipping the trout for distribution.

Captain Wherman and his men on the Tod Goodwin have also been very kind and willing in helping us, by doing many errands at distant points of the lake. Mr. Lawrence, of the Tallac House, and Captain Holt, also generously gave us free passage on the steamer Tallac. The citizens around the lake gave us many accommodations.

It would have been impossible for the Department of Hatcheries and the Restoration of Fishes to have done with its small funds the amount of work it has accomplished without the generous help which the Southern Pacific Railroad Company has extended in giving an annual free pass to the Superintendent to all parts of our State in his frequent trips to the hatcheries from San Francisco; also, in giving free passage in the baggage car for the salmon and trout eggs and all the cans of trout in the many shipments for distribution from the Sisson Hatchery, in the shipments of Black bass, and free passage for the attendants with the fish. The railroad people were very kind also in giving us the use of a handcar and right of way on their road in shipping the young salmon down the Sacramento for distribution. I would like to give an instance in which the railroad people have shown their kindness to the Fish Commission, and at the same time show why but few salmon have been up the Sacramento to spawn during the fall run for a long while past.

I was told by different parties that at a point on the Sacramento River, near the railroad tunnel No. 3, there was a horseshoe bend in the river; through the neck of this bend a mining company, years ago, had made a tunnel to drain the river in the dry season, so that they could mine the bed of the river around that bend. In August and September, when the salmon make their great migrations to their spawning beds, it was noticed that for years past but very few salmon made their appearance in the Sacramento River above the bend, while in early times the salmon went up in thousands.

In August and September the river is very low, and most of the water went through this tunnel, leaving so little water in Horseshoe Bend that it was almost impossible for the salmon to make their way up, while they congregated in thousands at the lower end of this tunnel, where the volume of water came through with such force, and made such a jump off into the river below, that the fish could not get up. Here the Indians, and also white men, would assemble, and while the salmon were using up their strength in continually making ineffectual efforts to leap up into the tunnel, they would destroy them with grab hooks and nets. This point is but a little way above where the Pitt River joins the Little Sacramento.

I determined to stop, if I could, this destruction of salmon and give them a chance to get up on their spawning grounds and deposit their eggs. I went down to this tunnel and made an examination, and saw at a glance that the railroad people—with their ties and old bridge timbers, with their handcars to carry them to the tunnel, and the crews of road repairers to do the work of putting in the timbers to face the tunnel, and blasting down the overhanging bank to fill up the open cut—could do the work much cheaper than I could. So I called at Fourth and Townsend Streets and told my story to the railroad people, showing the importance of this tunnel being closed up, that the salmon now being stopped there might not be hindered in making their way up the river to their spawning grounds; and asked them if they would not, as a great favor, have this job done by their men and send in their bill of expenses to the Fish Commission. They readily assented to have the work done, and, at the same time, said that if it did not cost too much, no charges would be made. In a short time they had the tunnel closed (1889), but, owing to the great pressure of the waters in the floods of the present year, 1890, the dam at the tunnel was torn out.

During the past summer it has been closed again, and the salmon will now have an unobstructed highway up the river.

The Fish Commission is also under obligations to the San Francisco and North Pacific Railway for free transportation, and also to the North Pacific Coast Railroad, both giving the use of their baggage cars and free passes for the attendants over their lines in shipping trout and Black bass for distribution.

I wish here also to acknowledge the many courtesies and aid extended to the Fish Commission by the many applicants for trout and Black bass, who have furnished teams to transport the fish and attendants from the railway station to the streams for planting; also, to Mr. J. H. Sisson for the use of the ground and the water for the Sisson Hatchery, and to the Edson Brothers for the use of the ground for the Shovel Creek Hatchery on their hotel grounds, and the privilege of trapping Shovel Creek for trout.

HAT CREEK.

I visited Hat Creek to see what advantages the State Hatchery there offered for hatching salmon. The hatchery at Hat Creek is a large building one hundred feet by forty-six feet, with sixty-four troughs sixteen feet long and twelve inches wide. The building has settled at its upper end owing to poor underpinning; the troughs have the grade the wrong way. The dependence for water is from a ditch owned by private parties, who use it for running machinery. The water comes through the ditch from up Hat Creek, and the ditch is dug through a formation of infusorial earth which is disintegrated by frost, making it very loose and friable; it crumbled into the water in the ditch, and was held in suspension in such quantities that it covered up the eggs in the hatching troughs.

The proper way is for the Commission to have entire control of the water for the hatchery. Copartnership in a ditch causes trouble, and the water is liable to be turned off entirely from the hatchery, which would cause, if it lasted for a few hours, the entire loss of all the fish and eggs. The water could be brought into the hatchery by an undercurrent wheel built in Hat Creek, near the upper end of the hatchery, which would give a large quantity of clear, cold water, and would, if built strongly, give a certainty to the continuousness of the supply; for Hat Creek never rises, as I have been informed, over eight inches above low-water mark. Hat Creek has a large volume of water at all seasons.

I think the more suitable place for the hatchery would be at the confluence of Hat Creek with Pitt River, on a point of land about two miles below the present site of the hatchery, where a large spring flows of clear, cold water; and as it is at the lower end of a fall or riffle in Hat Creek, a ditch of short length could be cheaply made to bring water for ponds. Opposite, and close at hand, is a seining place in Pitt River, and at this point, also, in Hat Creek, a trap could be built, as well as in Pitt River, to trap salmon and trout for spawners. The hatchery and spawning traps would be close together, which is of great importance for accommodation and security. (Fourteen years ago, when the old Board of Fish Commissioners gave me instructions to survey the Pitt River Falls, I selected this place as the most suitable for a salmon hatchery, if one ever should be built on Pitt River.)

There are not many salmon running up Pitt River, it is said, but if these

were caught and spawned, and the numbers supplemented by eyed eggs sent from the United States Hatchery on the McCloud River, a plant of two millions could thus easily be deposited in Pitt River and Hat Creek, which would be good nursery grounds for these fine fish to increase their numbers on the fishing grounds of the lower Sacramento River.

THE CLOSE SEASON FOR SALMON.

To prevent any depletion of our rivers, while the present great draft upon their fish supply is going on, to meet the demands of the canneries and the local markets, it is necessary that a sufficiently large number of young salmon should be hatched out naturally as well as artificially. It will be impossible to keep up the supply of salmon from artificial hatching alone for this reason, that the nursery grounds, which are accessible to distribution of the young salmon that are hatched artificially, are not extensive enough to meet and fully supply this great demand. We must have the aid of the salmon of the spring run to supplement our efforts, by stocking the highest mountain streams. The young salmon should be placed upon a great extent of nursery grounds for food and protection, to keep up the supply of mature salmon to return from their stall feeding in the ocean.

In order that this may be successfully accomplished, it is essential that the close season for salmon should be sufficiently long to give a free highway to enough breeders to ascend to the extreme headwaters of the salmon-breeding rivers to deposit their spawn over a large extent of nursery grounds beyond where teams can go to distribute cheaply the young fish from artificial hatching.

There are two great runs of salmon up the Sacramento River: one in March, April, and May, and another in August and September; but salmon are caught in considerable numbers during every month in the year.

RUN OF MARCH, APRIL, AND MAY.

It is very essential that a close season of two or three weeks in the month of April be enforced, in order to give a clear road for the passage of a part of the cream of the great run of the salmon in March, April, and May. It is the salmon from this run which reach the upper waters of our rivers, where they are almost inaccessible to man. Especially is this the case on the McCloud River. Above the United States Salmon Hatchery, which is about two miles from the confluence of the McCloud with the Pitt River, there are only four white men and but few Indians; and above the last white man on the river, eight miles beyond the United States Hatchery, for some sixty miles, till you reach "Horseshoe Bend," there is scarcely a soul to be found, when the spring run of salmon go up, to "molest or make them afraid" when passing through this long reach of the best salmon-breeding river in the world.

It is a fact well known to fish culturists that the winter and spring run of salmon, during the high, cold waters, go to the extreme headwaters of the rivers if no obstructions prevent, into the highest mountains.

They are in the very best condition when they start on their long journeys. Nature has implanted in them the instinct to begin their journey while the spawn is yet small, that it may not become full grown

and ripe for depositing until they reach their far-distant spawning grounds.

As they eat nothing while on their journey up the rivers, and with their fighting and exertions to overcome this distance, a great deal of the way being through a swift, racing current, and also with a constant draft upon their own vitality to mature their spawn, they become much exhausted and emaciated.

These fish cannot be used for spawning artificially, for at this season the waters are too high to catch them, and they are too unripe when they pass the United States Hatchery on the McCloud River to catch and impound them; in the attempt to keep them till they become ripe they would all die before they were ready to spawn. They will kill themselves if kept long in confinement, in their frantic efforts to get free to ascend to their spawning grounds.

THE CLOSE SEASON FOR THE AUGUST AND SEPTEMBER RUN.

The spawning time at the Government Hatchery on the McCloud River for the great run of salmon in the late summer and fall is principally during the month of September; it usually opens about the twenty-eighth of August and continues until the latter part of September.

The vital points of the question in considering the time for the close season are: At what time should the close season begin at the fishing grounds on the lower Sacramento River, and how long should it last in order that enough breeding salmon from the great run during the months of August and September may reach the United States Hatchery on the McCloud River, during the month of September, to furnish sufficient eggs for the artificial hatching of young fish for distribution on the nursery grounds to maintain the supply of mature salmon for food, which the rivers for nursery grounds and the ocean for feed till the salmon are matured, are capable of producing?

Ten years ago, during the administration of B. B. Redding, S. R. Throckmorton, and J. D. Farwell as Fish Commissioners, as many as fourteen millions of salmon eggs were taken during the month of September from the fall run of salmon.

The close season at that time was during the month of August.

The close season is now, and has been for some years since, during the month of September.

The Government Hatchery, on the McCloud River, renewed its operations in 1888. The number of eggs taken in September, 1888, was only about one million five hundred thousand; and in 1889, only about one million one hundred thousand eggs: or, averaging for the two years, less than one tenth as many eggs as were taken ten years ago, when the close season was during the month of August. This is a loss of 90 per cent.

For what cause, or by whose agency the close season was changed from the month of August to the month of September, I do not know. It was certainly a very disastrous change, if the interests of the salmon were considered.

During the last Legislature, in 1888, a bill was introduced by some one—from Solano County, I believe—to change the present close season for salmon from the month of September to the month of October.

If this bill had become a law, the close season would have been

pushed entirely beyond the season of the great run of salmon. "Give them an inch and they will take an ell," if they can get it.

It is of the utmost importance that the close season should be placed back again to the month of August. If more salmon do not reach the McCloud River during the month of September than have arrived there during the past two years, serious consequences will happen to the salmon industry of California.

By changing the close season for salmon back again to the month of August, it can easily be determined if the run of salmon has lessened during the past ten years.

If as many salmon do not arrive there during August and September as did ten years ago, or if an insufficient number got up during that period from which to secure the number of eggs necessary for artificial reproduction, then it will be imperative to include part or the whole month of September in the close season, in addition to the month of August.

I see no reason why this change should have been made in the close season, unless it may have been to accommodate the canneries and fishermen on the lower Sacramento in securing greater catches of salmon.

If there is any accommodation to be done in the matter, it should be towards the salmon which are trying their best to reproduce themselves in the effort that their kind may not be diminished, and not to those who are doing their best to destroy the salmon for the future that they may fill their pockets to-day, and "kill the goose that lays the golden egg."

Can it be possible that the people of this State will allow a great resource of food supply, which Nature has planted in our rivers, to be endangered by the remorseless destruction going on in the effort to catch every salmon that attempts to go up to the spawning grounds?

The following valuable communication has been received from Mr. Geo. B. Williams, Jr., and I take great pleasure in submitting it to the consideration of your honorable Board, as it so strongly represents the facts of the case:

BAIRD, CAL., July 8, 1890.

Mr. J. G. WOODBURY, *San Francisco*:

DEAR MR. WOODBURY: Yours of the fifth at hand. Two years of experience in charge of this station on the McCloud has convinced me that unless some action is taken by the Legislature and those interested in the propagation of salmon as a food fish, to include the month of August as well as that of September in the close season, not many years will elapse when this valuable food fish will become almost extinct.

On account of the high water we are liable to have at this point during the spring and late fall runs, it is impracticable to secure and spawn by artificial methods the parent fish; but the August run comes at a time when it can be handled successfully. In order to allow this run to reach the headwaters of the Sacramento River and its tributaries, the months of August and September should be reserved to allow a free passage of salmon.

I draw my conclusions from the fact that in previous years, when there was no fishing with seines in the Sacramento to speak of, thousands of salmon collected here during the latter part of August and during the month of September, and we found no difficulty in securing all the eggs we could handle, fourteen million ova having been taken in one season. From the August run in 1888 but one million five hundred and sixty-eight thousand six hundred eggs were secured, and in 1889 one million one hundred and five thousand were taken. In 1888 the season's take was increased to five million five hundred and four thousand six hundred, by securing ova from the late run in October and November. But this was something unusual, and could not have been accomplished had it not been that the rains did not set in until December of that year. An attempt was made in 1889 to take the late run, but rains in October caused the McCloud to become very high, and racks and dams were washed out, allowing the parent fish to ascend the river and small creeks above the station.

It is very hard to decide how long it takes the salmon to reach their spawning grounds after they leave the seining grounds of the lower Sacramento, but as near as we can tell, from two to three weeks.

As you know, the work done at this station is almost entirely for the State. It seems as if it should be the aim of the people to do all in their power to aid the United States Fish Commission to accomplish its object by making laws that will protect this valuable food fish.

Much more could be said regarding the tremendous decrease in late years of the salmon, but I think I have advanced sufficient reasons to show that a longer close season is necessary to make a success of our work. It is a question that should be seriously considered and acted upon at once.

Yours truly,

(Signed:)

GEO. B. WILLIAMS, JR.,
Superintendent of Station.

STRIPED BASS.

There were brought to this coast in 1874 some one hundred and fifty Striped bass, about one and one half inches in length. From these quite a number of mature fish were caught in years afterwards, but it was not certain that they had reproduced themselves, and it was thought best to have another shipment of these fish brought out to this coast, to make it as sure as possible that these excellent fish should become familiar in our waters.

By instructions of the Board of Fish Commissioners, B. B. Redding, S. R. Throckmorton, and J. D. Farwell, in 1882 I brought out from the Shrewsbury River at Red Bank, New Jersey, just above Monmouth Park, a shipment of Striped bass, running from five to nine inches in length, and planted them in Suisun Bay, at Army Point. Quite a number of these have been caught from year to year, increasing in weight every year. Last year several were caught weighing over twenty pounds, and during the past winter one was caught weighing thirty-five pounds.

I have been watching for the young fish, the progeny of those brought out in 1882, and during the past spring, on my return from a trip to Tahoe Hatchery, I heard that they were being caught by the thousands and offered for sale in the market. I hurriedly went up to the market to see if it were true. I found there a lot still unsold, averaging from one half to three quarters of a pound in weight. I was delighted to see them, knowing that those brought out from New Jersey must have kept together in the muddy waters of our bay till they matured and spawned, and their young had been successfully reared.

But knowing that the young Striped bass run in schools, I became alarmed lest the many Chinese nets in our bay and the lower Sacramento and San Joaquin Rivers would soon destroy the greater part of them, which would be a great pity, as they had cost so much money, trouble, and time in waiting for them to reproduce themselves. And if these young fishes could remain unmolested for a few years longer, till they themselves had spawned, our bays would be full of these splendid fishes. Certainly this would be a great acquisition to the whole Pacific Coast.

I immediately visited the newspapers, and they kindly published a notice of the arrival of the numerous strangers, of their great importance, and the danger of their destruction if they were not protected.

Your honorable Board petitioned the Board of Supervisors to pass an ordinance to prohibit catching them under eight pounds in weight. This they quickly did. A similar petition it would be advisable to present to the Boards of Supervisors of Marin, Sonoma, Solano, Contra Costa, Alameda, San Joaquin, and Sacramento Counties. The young bass will most certainly visit the waters of all these counties, and their protection for a few years is of vital importance.

I have since learned from the market men that from three to four thousand of these fish were sold in the market before the ordinance was passed, and that it has since been in the newspapers that these fish have been caught and sold in other counties around our bay.

The arrival of so many young of this fish at one time in our markets, shows conclusively that the Striped bass have successfully reproduced themselves in our waters. Our anglers may anticipate some grand sport in a few years.

I am happy to give the people of California some desirable information about this useful fish, and take the opportunity of appending to my report a valuable paper taken from "The Fisheries and Fishing Industries of the United States," by George Brown Goode.

NECESSITY FOR A TROUT HATCHERY NEAR SAN FRANCISCO AS A DISTRIBUTING POINT.

California is a large State in territorial area, approximating to three times the size of the State of New York.

The headwaters (the breeding places for trout and salmon) of most of the large streams in our State are far away from the railroads, and are also in high altitudes. To reach these is, in most instances, a weary road to travel by stage coach and teams, and in some cases by horseback only, following Indian trails through almost impassable cañons and mountain gorges.

The Sisson Hatchery, which is at present the distributing point for the Rainbow trout, is about seven hundred miles from the southern border of the State, and applications for trout come in from Siskiyou to San Diego Counties.

To distribute fish into these streams over such a vast territory is very expensive, and the cost is much increased by the many difficulties in getting to their headwaters with teams heavily loaded with ice and cans of water, over the long, hot valleys, and up steep mountain roads.

It is also unsafe to transport young fish in large numbers over such long distances.

To ship half a million of eyed eggs is comparatively inexpensive to what it is to ship the same number of young fish. Thirty thousand young trout in eight to ten cans of water is as much as it is safe for one man to carry on a long journey. This means half a ton of water and hundreds of pounds of ice.

Express charges for this great weight are heavy; the cost of the ice, railroad fares to and fro, teams to transport the fish from the railroad to the streams (sometimes for sixty miles to their headwaters), hotel expenses, and telegraphic charges rapidly eat up our funds.

Two men are compelled to go on long journeys to care for the fish, as the water in the cans has to be almost continuously aerated night and day to give the fish fresh air to breathe, and the water in the cans requires occasional changing.

A trip with trout from Sisson to the southern part of the State consumes nearly one week's time, which is very dangerous to the safety of the young trout, and limits the number of trout which can be distributed. To make these journeys shorter and less expensive, with saving of time, and with more certainty that less fish will be lost in their transporta-

tion, it is essential that a string of hatcheries should be established as is done in other States.

We have already built and equipped two extensive hatcheries: one at Lake Tahoe as a point for distribution for the mountain region and the eastern slope of the Sierras; and a large hatchery at Sisson, which was built for the purpose of stocking the Sacramento River with salmon. This can be used as a distributing point for the northern part of the State for trout also; and a small hatchery on Shovel Creek, which is for eyeing the eggs of trout to be shipped to other hatcheries as distributing points.

Now, it is very essential that a hatchery with nursery troughs (space sufficient to accommodate one million of young trout till they begin to feed, or till they are old enough to be distributed in the streams) should be built during the coming winter in or near San Francisco, as a distributing point for the waters in Central California, to which the eyed eggs can be sent from Shovel Creek or some other hatchery.

A plain hatchery for this purpose, well equipped, with quarters for the men, would probably cost from \$1,000 to \$1,200.

The demand for trout will be the greatest from a hatchery here to keep up the supply in the many streams in this part of the State, to meet the growing wants of the many anglers in the counties surrounding the bay of San Francisco.

This place is also the center from which radiates all the many routes of travel by which the trout can be conveniently shipped to all parts of the State without delay.

After full consideration of these matters by your honorable Board, if I have presented the subject in a proper light to convince you of its importance, I would suggest that a petition be presented to the incoming Legislature in the first days of its session to make an appropriation of \$1,000 to \$1,200 for a new hatchery and its equipment and quarters for the attendants, the money to be immediately available, so that work can begin in time to have it finished to receive the first trout eggs in the early spring of 1891.

APPROPRIATIONS FOR THE SUPPORT OF HATCHERIES AND RESTORATION OF FISHES.

As the field of fish culture and propagation is continually increasing, the appropriation for this department must also increase with its development. The appropriations, owing to the immense area of California, should at least approximate those of Eastern States (which are devoted almost entirely to hatcheries and the restoration of fishes). The State of New York, which is of one third less area, makes an annual appropriation of from \$30,000 to \$35,000 to enable its Fish Commission to carry out its work. This department is being continually hampered by want of funds, and is compelled to forego the necessity of making constant improvements. Efficiency, thorough and satisfactory, cannot be had without incurring expenses far above the present limited appropriation in the department embracing Hatcheries and Restoration of Fishes.

It is doubtful economy that hinders the cheapening of food for the people.

It seems absurd to appropriate so small a fund as \$5,000 to foster and maintain the fish industries of this State. A resource furnishing a staple

article of food for the people—a cheap and plentiful supply of wholesome food—is of immense importance. The waters of California are almost unlimited in their capacity to produce fish food, but wanton destruction of fishes when they congregate at certain seasons of the year for breeding purposes, and the increasing demand on them to supply an increasing population with food, will soon largely diminish their numbers unless assistance is rendered by artificial reproduction on a greater scale than is being done at present.

When live stock is owned by private parties it is to their individual interest that the best care be taken of it to the end that it may make the most remunerative returns. But the fish which the waters of our State produce are the common property of the whole people, and it is not the duty of any one individual to see that the fish interests are cherished.

AN ANNUAL APPROPRIATION OF TWELVE THOUSAND DOLLARS NECESSARY.

It follows that it is the duty of the Legislature to appropriate adequate funds to meet the expenses incurred in carrying out the work necessary to such an important trust.

This work embraces the artificial reproduction and distribution of young salmon upon their nursery grounds to keep up the supply to meet the immense draft upon their numbers as they annually migrate as mature salmon from the ocean to their spawning grounds, by the fishermen's many miles of network and seines, catching them to supply canners and the local markets.

If this work is not kept up from year to year, it is certain that their number will be diminished, and in time salmon will become as great a rarity in California as they are to-day in New England.

The artificial reproduction and distribution of trout over this State to satisfy the increasing number of applications for these fishes to supply the depleted streams which our growing population in their search for health and recreation exhaust, it is far beyond the unaided powers of trout to keep the streams well stocked; and as far as the present appropriation for this costly work goes, it is only a make-believe towards accomplishing what the real work should.

It would be most desirable to continue the purchase of the eggs of the Eastern Brook trout—that pride of the trans-mountain angler—for their introduction into the headwaters of all our high mountain streams, where it has been demonstrated they have done well in the past, and it is but reasonable to suppose that as they become acclimated they will gradually descend the rivers and spread themselves over the whole State.

The Black bass is such a desirable fish that, as we already have them, it would be a public benefit to systematically distribute them into all the suitable waters of the State. When once planted they become permanent "settlers," no restocking is necessary, and it would be well to do this work quickly.

I would recommend the introduction of the eel, which is highly esteemed in the East and in Europe; in fact, it is considered a luxury, and is preferred by many to the trout. The flesh of the eel salted, smoked, and pickled, forms quite an article of trade, and will in time afford a large addition to the food for the people.

Many have asked for the introduction of the Big-mouthed Black bass from the Southern States for planting in our warmer waters; also, the big catfish of Texas, which occasionally weighs three hundred pounds. It is said that it would be very desirable for the Sacramento and San Joaquin Rivers.

A part of the fund should be expended for the scientific investigation of the economic fishes of our State, and experimenting in artificial reproduction of others fishes, among them the sturgeon, which valuable food fish is becoming notably scarce.

For all of the foregoing, which is expensive field work, the present appropriation of \$5,000 is ridiculously insufficient, and it is needful that \$12,000 should be annually appropriated for the sole and exclusive use of this department.

Therefore, I would suggest to your honorable Board that you would petition the Legislature for an annual appropriation of \$12,000 for the Hatcheries and Restoration of Fishes.

SCREENS FOR DITCHES.

Most ditches take their supply of water from the streams above the valleys, from the lower foothills to far into the high mountains.

Our mountain streams are good spawning grounds for trout and salmon.

The young trout, as soon as able to swim, leave their hidden recesses in the gravel and seek the shallow water near the bank or shore of the streams where the water is less swift. Here they are better able to stem the current, and are also comparatively safe from the raids of larger fish which live in the deeper water, and are cautious about venturing into the shallow water.

Ditches, of course, take their supply from the shores of these streams. The current at the inlet of these ditches is strong, and draws the little fellows down with the water farther and farther. The current within the ditch is so strong that they cannot get back, hardly, even if the instinct of fear impelled them to do so.

But they go with the current willingly. Mother Nature has not taught them that these side issues from their native brooks lead to their destruction, by distributing them with the water to nourish the roots of alfalfa and timothy grasses, or through the great fields of the raisin grape or wine vineyards and orange orchards; nor by being dashed over the rocks through nozzles of miners' pipes, nor by being ground up into mince meat by the turbine wheels of sawmills and papermills.

These thousands of ditches tapping the mountain streams the whole length of our State, from Oregon to Arizona, destroy ten times more fishes, especially the trout and salmon, than is done by all other means of illegal destruction of fishes. The numbers of trout destroyed through the agency of ditches will run up into millions every year.

This great destruction of fishes is self-evident to every man who taps a trout stream for irrigating purposes, unless the process has been going on so long that the stream has already become barren of fishes.

I have already cited an instance in this report of the great destruction of trout in Siskiyou County by a ditch from Shasta River, which was told to me by the owner of the ditch.* I have known of what I write by observation in traveling over this State during the past twenty years.

Refer to trip to look up a trout hatchery in 1889.

Hundreds of men have told me the same story, and angrily denounced such wanton destruction of trout, saying that in a few years, unless there was a stop put to it, there would be but few to destroy. Those who use the waters from these ditches admit the facts. I do not believe there is a man in the State who knows anything practically about the use of ditch water but who will admit what I have stated about the great destruction of trout is substantially true. I will instance a case which happened last year not far from the hatchery at Sisson.

A lot of young salmon had been distributed in Big Spring Creek. At that time we were not aware that there was a ditch taking water from this creek, but it happened there was one whose inlet was from the opposite bank from the road, hidden from view by a thick growth of alders.

Some time after the salmon had been planted, at a considerable distance above this ditch, its owners had occasion to shut the water off. After the water had drained away they saw so many dead salmon, that word was sent to the men at the hatchery who went up to investigate, and they estimated that about seven thousand young salmon had perished. What is the use of stocking our streams with fish to have them killed off by wholesale in this manner?

It is well known that in early times all the mountain streams through the mining counties were bountifully stocked with trout, and where there are at the present time hundreds of ditches taking water from these streams for irrigating and mining purposes. All these streams have fine spawning grounds for trout for miles far above where the mining debris has been deposited, and even where it is almost impossible for an angler to go. And besides these counties are not thickly populated, and the streams cannot have been fished to excess. Yet the people in these mountain counties are asking for trout to restock their streams.

All these streams would be full of trout if it were not that they have been destroyed by the open ditches.

To stock these streams with trout, whose waters are taken out through ditches without screens at their inlets to protect the young fish from being drawn into them and destroyed, is a waste of time and money. It is as ineffectual as it would be to try to dip up water in a sieve.

If it is of material consequence to keep our mountain streams stocked with trout and salmon, then it is imperative that a law should be passed compelling the owners of all ditches, flumes, and pipes which take their supply of water from public streams, to maintain screens across their inlets of sufficient fineness to prevent young trout from finding their way through.

In regard to the size of the mesh, it is of the utmost importance that it should keep out the young trout, and yet let through enough water for the requirements of the ditch.

The mesh of the screen should not be larger than one fourth of an inch square.

To let in sufficient water with this size of mesh, and not require but little attention to keep off rubbish, the surface of the screen should be two or three times larger than the cross-section of the ditch.

The ditch or flume should be enlarged at its inlet or mouth by flaring its sides to accommodate this size of screen.

A good way to put in a screen which will prevent the young fish from being drawn against the wire, as well as the floating stuff in the stream,

which would have a tendency to choke the screen, and, of course, let in less water, is to have the flaring end of the flume flush with the bank of the stream, and fitted with cleats to receive a light wooden frame.

To this frame should be fastened an oblong square basket made of the screen wire cloth. The depth of the basket should be a foot or so, according to the size of the ditch. The screen being in place, the depth of the basket would thus project into the stream, and have the two ends, one side, and the bottom of the basket as a screen surface.

The upper end of the basket would, of course, be more or less clogged up with floating stuff, but the under side and the lower end would be almost entirely free, while the bottom of the basket, or outer surface, which should be nearly parallel with the current of the stream, would be kept comparatively free from floating stuff by the current itself.

This basket screen, being loosely fitted between the cleats, could be easily taken out, and with a few splashes in the stream cleared of all rubbish.

A coarse rack of slats outside of the screen would keep off any large floating substance, which might otherwise injure the basket, and with a boom fastened at the bank above the ditch, and swung diagonally part way across the stream and fastened in position, would ward off most of the floating debris.

Of course, if the main ditch at the stream has a screen, the smaller ditches taking water from the main ditch will require none.

Galvanized wire cloth of one quarter-inch mesh, strongly made, and soldered at each intersection of the wires, can be bought in San Francisco for 6 cents per square foot.

The cheapness of the wire will make the cost of a good sized screen but a small item. And with a little of our American ingenuity in constructing it, and an ardent desire for the safety of our trout, screens can be speedily placed at the inlet of all ditches.

Accompanying this report will be found a copy of the Screen Law of Wyoming, which Fish Commissioner Louis Miller kindly sent me.

THE STRIPED BASS. *Roccus Lineatus*.

Geographical Distribution.—The Striped bass, as has already been stated, occurs in all the waters of our coast from latitude 50 degrees to latitude 30 degrees. In the North it is called the "Striped bass," in the South the "Rock-fish," or the "Rock." The neutral territory, where both these names are in use, appears to be New Jersey. The fishermen of the Delaware use the latter name; those of the seacoast the former. Large, sea-going individuals are sometimes known in New England by the names, "Green-head" and "Squid-hound." There is still some uncertainty regarding the southern limits of the distribution of this species. In the Saint John's River, Florida, they are very unusual. Though familiar in the fisheries of that region since 1873, I have only known of the capture of two individuals. Mr. Stearns has obtained one or two specimens in the Gulf of Mexico, and gives an account of the degree of their abundance in those waters. He writes: "They are occasionally caught on the northern shores of the Gulf, and are, evidently, more common about the mouths of the Mississippi River than elsewhere. Since they are taken in this region only in seines, and in shallow water, their abundance cannot be correctly determined. The earliest I have been able to obtain of the capture of Striped bass in Pensacola Bay, is

that of Captain John Washington, of Mystic, Connecticut, who states that in 1850, while seine fishing from the smack "Francis Parkes," he surrounded with his seine a large school of fish which were quite unmanageable. A few of them were saved, and proved to be large Striped bass, weighing from fifteen to forty pounds. At long intervals since, solitary individuals have been taken at various points on the coast. At New Orleans it is found in the market quite often. An eighteen-pound specimen was sold there in March, 1880."

In Hallock's "Sportsmen's Gazetteer" the following statement occurs: "It is constantly seen in rivers of fresh water at great distances from the ocean, even as far up the Mississippi as St. Louis, and it is common in White River, Arkansas, and in all the rivers of the Southern States."

While there can be no question that straggling individuals of this species have been taken in the Gulf of Mexico, it seems probable that both Mr. Stearns and Mr. Hallock have been mistaken by the resemblance of this species to the Brassy bass (*Roccus interruptus*), which abounds throughout the lower Mississippi Valley.

Canadian authorities inform us that, though the bass still occur along the New Brunswick and Nova Scotia shores of the gulf, they are much less abundant and of smaller size than formerly. They have been known to ascend the St. Lawrence as far as Quebec, and Mr. Roosevelt has seen a specimen, a female fish, which was taken in the Niagara River near Lewiston. The bass is most abundant in the bays and inlets of Cape Hatteras, in the Chesapeake and Delaware Bay region; and in the protected waters of Long Island and southern New England. In winter they occur in considerable numbers in the Altamaha River, and are unusual in the markets of Charleston, South Carolina.

Habits.—The Striped bass is not migratory, being found along our coasts in winter as well as in summer, and in our markets in every month in the year. Great quantities are taken in winter in the rivers tributary to the Chesapeake, and in the rivers of New Brunswick quantities of them are speared through holes in the ice. During the past four years I have known of their capture in Long Island and Block Island Sounds, and in the Merrimac River in December, and in Martha's Vineyard Sound and in the lower part of the Hudson River in January. Though they appear to avoid a temperature higher than 65 or 70 degrees, they are not sensitive to cold, and there is good evidence that they frequently, when detained throughout the winter in shallow places, enter upon a state of torpidity.

Food.—They are very voracious feeders. Entering the rivers, they prey upon small fishes. They are particularly abundant at the time of the spring runs of the shad and herring, and at this season are particularly plump and well fed, doubtless owing to the ease with which they can obtain food. They also frequent the rocky shores of the bays and sounds at high tides, in search of crabs, shrimps, and squids; and they are said to feed upon clams and mussels, which they obtain by delving with their snouts.

Reproduction and Growth.—They spawn in the late spring and early summer, some of them in the rivers, others probably at sea, although this has not been definitely ascertained. The European bass are said to deposit their spawn near the mouth of the rivers in the summer months.

From North Carolina to New Jersey the spawning time appears to be in May; in New Brunswick in June. Dr. Blanding many years ago

estimated the number of eggs at two million two hundred and forty-eight thousand. Their rate of growth is very rapid. Dr. C. C. Abbott, for five successive years, found in the Delaware River young an inch long in the second week in June. About the middle of October these had grown to the length of four and a half inches.

The young fish—five to nine inches in length—which are taken in such quantities in the Potomac in February and March, are supposed to be the young of the previous year. Captain Gavitt, of Westerly, Rhode Island, has caught bass in June that weighed from one half to one pound, put them in a pond, and taken them out in the following October, when they weighed six pounds. The average size of this fish probably does not exceed twenty pounds. In the Potomac, Hudson, and Connecticut Rivers the largest seldom exceed thirty or forty pounds, though in the Potomac fifty-pound fish are not unusual. The Fish Commission has for several years had a standing offer of a reward for a sixty-pound fish from the Potomac, but none has been forthcoming as yet. The largest Striped bass on record was one weighing one hundred and twelve pounds, taken at Orleans, Massachusetts, in the town cove. Such a fish would be at least six feet in length. A fairly proportioned bass thirty-six inches long would weigh at least eighteen pounds.

Uses.—The Striped bass is one of the most valuable of our food fishes, its flesh being firm, finely flavored, and hard enough to bear exposure to the air for some time without injury. It is also the most popular game fish, next to the salmon. Those in the markets are chiefly obtained in seines and traps, set at various points along the coast from the south side of Cape Cod to New Jersey. Great quantities are also taken in the shad seines in the spring. They may be readily taken, also, by heaving and hauling in the surf with menhaden bait, the fish being tolled by the use of great quantities of menhaden ground into small bits, and in fresh or brackish water by the use of the artificial fly. At various points on the coast of southern New England are club-houses, supported by wealthy amateurs for the purpose of carrying on these sports.

It has already been stated that the Striped bass are believed to be less abundant in the Gulf of St. Lawrence than in former years. Similar complaints are heard from the Bay of Fundy, and from Cape Cod, where the period of diminution is believed to date from the last advent of the Bluefish: about 1850. The bass fishery, in Cape Cod Bay, was formerly of great importance, but the capture of this fish is now of rare occurrence. The early settlers of New England seem to have been more impressed by the abundance of bass than by any other circumstances connected with the fisheries, and the early chronicles are full of allusions to their exceeding plenty and excellence.

Captain John Smith saw so many in one river, that he declared that he thought he might have walked across on their backs dryshod. While there can be no doubt that north of Cape Cod their numbers have decreased, there is no reason to believe that elsewhere on our coast the fisheries have had any especial effect upon them. A Hessian officer, writing in 1777, declared that enormous numbers were, at that time, brought to New York; and the same might be said at the present day. Three fishing gangs at Bridgehampton, New York, took over eight thousand in less than a week, in December, 1874. Captain Charles Ludlow secured at one set of his seine one thousand six hundred and seventy-two bass, or about three and a half tons. Shortly afterwards a

New London fisherman brought in four hundred and nineteen bass, one hundred and eighty-five of which had been caught with a hook in three hours, near Norfolk, Virginia. One thousand five hundred have been taken with a single set of the seine. A few years ago, it is said on credible authority that six hundred were once taken, the average weight of each being eighty pounds.

DISTRIBUTION OF FISH BY THE CALIFORNIA STATE FISH COMMISSION.

DISTRIBUTION OF TAHOE TROUT.

Distributed in September and October, 1888.

LOCALITIES AND REMARKS.	Number of Fish.
Squaw Creek	20,000
Lake Tahoe, at various points	245,000
Donner Lake	100,000
Dinkley and Buena Vista Creeks, Fresno County	30,000
South Fork of American River	20,000
Taylor Creek	25,000
Truckee River	105,000
South Yuba River	35,000
Shafer's Creek	7,000
Richardson's Creek	7,000
Barker's Creek and Lake	5,000
Gilmore's Lake	1,500
Watson's Lake	500
Total Tahoe trout (as reported by Mr. J. C. Frazier, October 27, 1888)	601,000

DISTRIBUTION OF SALMON.

DATE.	Where Distributed and Remarks.	Number of Fish.
1888.		
Dec. —	McCloud River, from the United States Hatchery, by contract with Mr. Livingston Stone, at 75 cents per thousand	500,000

FROM SISSON HATCHERY, FOR THE SEASON OF 1888-89.

Early Fall Run.

DATE.	Where Distributed and Remarks.	Number of Fish.
1888.		
Dec. 23.	Below Eighteenth Crossing, main Sacramento River	50,000
Dec. 24.	Above Eighteenth Crossing, main Sacramento River	100,000
Dec. 25.	Above Sullivan's, West Fork Sacramento River	100,000
Dec. 26.	Near Stevens', West Fork Sacramento River	100,000
Dec. 27.	West Fork Sacramento River	100,000
Dec. 28.	Big Springs Creek, tributary Sacramento River	80,000
Dec. 29.	Suloway Creek, tributary Sacramento River	150,000
Dec. 30.	Cold Creek, tributary Sacramento River	60,000
Dec. 31.	Near Big Castle Creek, main Sacramento River	50,000
	Total	790,000

Late Fall Run.

DATE.	Where Distributed and Remarks.	Number of Fish.
1889.		
Mar. 25.	West Fork Sacramento River.....	156,000
Mar. 26.	West Fork Sacramento River.....	144,000
Mar. 27.	West Fork Sacramento River.....	72,000
Mar. 27.	School House Spring Creek, tributary Sacramento River.....	144,000
Mar. 28.	Big Spring and Sullivan Creeks, tributary Sacramento River.....	144,000
Mar. 28.	Suloway and Cold Creeks, tributary Sacramento River.....	104,000
Mar. 29.	West Fork Sacramento River.....	144,000
Mar. 30.	West Fork Sacramento River.....	144,000
April 3.	Near Upper Soda Springs, main Sacramento River.....	84,000
April 4.	Near Eighteenth Crossing, main Sacramento River.....	90,000
April 5.	Near Mossbrae Falls, main Sacramento River.....	90,000
April 6.	Near Mossbrae Falls, main Sacramento River.....	90,000
April 7.	Near Dunsmuir, main Sacramento River.....	90,000
April 9.	Near Lower Soda Springs, main Sacramento River.....	90,000
April 10.	Near Little Castle Creek, main Sacramento River.....	90,000
April 11.	Near Anderson's Mill, main Sacramento River.....	90,000
April 12.	Three miles below Anderson's Mill, main Sacramento River.....	90,000
April 15.	Near Big Castle Creek, main Sacramento River.....	90,000
April 16.	Two miles below Big Castle Creek, main Sacramento River.....	90,000
April 17.	Below Welsh's Mill, main Sacramento River.....	72,000
April 18.	Below Eighteenth Crossing, main Sacramento River.....	60,000
	Total.....	2,168,000

DISTRIBUTION OF TAHOE TROUT.

FROM TAHOE HATCHERY, 1889.

DATE.	Applicant.	Where Distributed.	Number of Fish.
1889.			
Aug. 18.	-----	Blackwook Creek, tributary of Lake Tahoe ..	60,000
Aug. 24.	-----	Sea Gull Point, Lake Tahoe.....	35,000
Aug. 26.	-----	Near Saxon's Old Mill, Lake Tahoe.....	35,000
Aug. 27.	-----	At wharf, Tahoe City.....	20,000
Aug. 28.	-----	Off Island Ranch, Lake Tahoe.....	30,000
Aug. 29.	-----	Off Island Ranch, Lake Tahoe.....	40,000
Sept. 3.	-----	Meeks' Bay and Creek, Lake Tahoe.....	60,000
Sept. 3.	Murphy Bros.	Small lake at the head of Meeks' Creek ..	8,000
Sept. 4.	O. Roberts	Meeks' Bay, Lake Tahoe.....	60,000
Sept. 5.	O. Roberts	Phipp's Creek, tributary of Lake Tahoe.....	60,000
Sept. 6.	McKinney	Lake Tahoe, near Sugar Pine Point.....	60,000
Sept. 7.	McKinney	Quail Creek, tributary of Lake Tahoe.....	60,000
Sept. 8.	McKinney	In Lake Tahoe, near the snag	60,000
Sept. 10.	M. Lawrence.....	Taylor Creek, tributary of Lake Tahoe.....	60,000
Sept. 13.	M. Lawrence.....	Fallen Leaf Lake, tributary of Lake Tahoe ..	60,000
Sept. 14.	Mrs. Vade Clark ..	Rubicon River, branch of Middle Fork of the	
Sept. 17.	-----	American River.....	50,000
and 18.	Mrs. Kirby.....	Emerald Bay, Lake Tahoe.....	100,000
Sept. 18.	M. Lawrence.....	Taylor Creek and Floating Island Lake.....	30,000
Sept. 20.	A. J. Bayley.....	Burton Creek, tributary of Lake Tahoe	25,000
Sept. 23.	A. J. Bayley.....	Truckee River, above Wardrusk Dam.....	60,000
Sept. 24.	-----	Blackwood Creek, tributary of Lake Tahoe ..	65,000
Sept. 27.	Mr. Gilmore.....	Gilmore Springs, seven miles from Yank's ..	8,000
Sept. 29.	Mr. Wentworth.....	Loon Lake and Buck Island Lake, headwaters	
		Middle Fork American River.....	25,000
Oct. 2.	A. L. Frost	Near Rubicon Point, Lake Tahoe.....	25,000
Oct. 5.	-----	Ward Creek, tributary of Lake Tahoe.....	20,000
Oct. 5.	A. J. Bayley.....	Truckee River, below outlet of Lake Tahoe ..	6,000
Oct. 5.	Com. Todman	Lake Tahoe, near Tahoe City.....	5,000
		Total	1,027,000

DISTRIBUTION OF SALMON.

FROM SISSON HATCHERY FOR THE SEASON OF 1889 AND 1890.

Early Fall Run.

DATE.	Where Distributed and Remarks.	Number of Fish.
1890.		
Feb. 3...	Cold Creek, tributary of Sacramento River.....	100,000
Feb. 4...	Sullogway Creek, tributary of Sacramento River.....	100,000
Feb. 5...	Cold Creek, tributary of Sacramento River.....	100,000
Feb. 6...	Sullogway Creek, tributary of Sacramento River.....	100,000
Feb. 7...	Big Spring Creek, tributary of Sacramento River.....	140,000
Feb. 8...	School House Spring Creek, tributary of Sacramento River.....	180,000
Feb. 10...	Sullogway Creek, tributary of Sacramento River.....	150,000
Feb. 12...	Big Spring Creek, tributary of Sacramento River.....	100,000
	Total	970,000

Late Fall Run.

DATE.	Where Distributed and Remarks.	Number of Fish.
1890.		
April 23...	West Fork Sacramento River	80,000
April 25...	West Fork Sacramento River	75,000
April 26...	Upper Soda Springs, main Sacramento River.....	75,000
April 28...	Near Dunsmuir, main Sacramento River.....	75,000
April 30...	Near Eighteenth Crossing, main Sacramento River.....	45,000
	Total	350,000

DISTRIBUTION OF EASTERN BROOK TROUT.

DATE.	Localities and Remarks.	Number of Fish.
1890.		
June 7...	Deer Creek, east of Vina, Tehama County, California, for Senator Stanford.....	12,000
June 6...	Headwaters McCloud River, Siskiyou County.....	24,000
June 8...	Shovel Creek, branch of Klamath River, for A. C. Tubbs, Siskiyou County	4,000
June 9...	Big Springs, branch of Shasta River, Siskiyou County	8,000
June 9...	Griffen's Springs, branch of Shasta River, Siskiyou County.....	2,000
June 8...	Wadsworth Springs, branch of Shasta River, Siskiyou County.....	1,000
June 8...	School House Springs, branch of Sacramento River, Siskiyou County	2,000
June 19...	Headwaters of Shasta River, branch of Klamath River, Siskiyou County	8,000
June 19...	Kaiser's Springs, headwaters of Sacramento River, Siskiyou County	6,000
June 25...	West Fork of Sacramento River, Siskiyou County	16,000
	Total Eastern Brook trout	83,000

DISTRIBUTION OF TAHOE TROUT.

FROM TAHOE HATCHERY.

DATE.	Applicant.	Where Distributed.	Number of Fish.
1890.			
July 28.	Com. Todman	Truckee River, above Ward Rush Dam (Rain-bow trout)	8,000
July 29.	M. Lawrence	Taylor Creek, tributary of Lake Tahoe	60,000
July 31.	M. Lawrence	Fallen Leaf Lake	56,000
Aug. 2.	M. Lawrence	Taylor Creek and Cascade Lake	60,000
Aug. 4.	Mrs. Kirby	Emerald Bay, Lake Tahoe	60,000
Aug. 5.	A. L. Frost	Near Rubicon Point, Lake Tahoe	56,000
Aug. 6.	Mrs. Wade Clark	Rubicon River, branch of Middle Fork of American River	50,000
Aug. 8.		Meeks' Creek, tributary of Lake Tahoe	52,000
Aug. 9.	O. Roberts	Phipps' Creek, tributary of Lake Tahoe	56,000
Aug. 11.	J. McKinney	Quail Creek, tributary of Lake Tahoe	56,000
Aug. 12.	J. McKinney	McKinney's Creek, tributary of Lake Tahoe	50,000
Aug. 19.	Mr. Gilmore	Gilmore Springs, seven miles from Yank's (several small lakes)	35,000
Aug. 21.		Blackwood Creek, tributary of Lake Tahoe	60,000
Aug. 22.	J. McKinney	Loon Lake (15,000), Summit Lake (5,000), Quail Lake (5,000)	25,000
Aug. 23.	M. Lawrence	South Fork American River, fourteen miles from Tallac	35,000
Aug. 25.	Com. Todman	Truckee River, above Ward Rush Dam (Rain-bow trout)	38,000
Aug. 26.	J. Moody	Donner Lake	50,000
Aug. 26.	J. Moody	Headwaters Alder Creek, near Truckee	8,000
Aug. 27.	Mr. Scott	Squaw Creek, tributary of Truckee River	8,000
Sept. 14.	Mr. Scott	Squaw Creek, tributary of Truckee River	10,000
Sept. 17.	H. D. Burton	Carnelian Bay, Lake Tahoe	20,000
Sept. 23.	A. J. Bayley	Burton Creek, tributary of Lake Tahoe	20,000
		Total Tahoe trout	873,000

DISTRIBUTION OF BLACK BASS.

DATE.	Applicant.	Locality and Remarks.	Number of Fish.
1889.			
Aug. 12.	Senator Jones	Thermalito Reservoir, at Oroville, Butte County, Cal.	60
Aug. 17.	J. D. Jordan	Clear Lake, Lake County, Cal.	160
Aug. 25.	J. D. Jordan	Clear Lake, Lake County, Cal.	160
Aug. 31.	W. G. Dickinson	Sweetwater Lake, National City, San Diego County, Cal. (40 per cent lost)	120
1890.			
Aug. 12.	Pacific Imp't Co.	In lake at Del Monte, Monterey County, Cal.	40
Aug. 12.	Pacific Imp't Co.	Reservoir in Pacific Grove, Monterey County, Cal.	60
Aug. 22.	O. Weissman	Blue Lakes, Lake County, Cal.	69
Aug. 29.	J. D. Jordan	Clear Lake, Lake County, Cal.	88
Sept. 4.	A. C. Bassett	Sargent's Station, Pajaro River, Santa Clara County, Cal.	40
Oct. 6.	McD. R. Venable	City Reservoir, San Luis Obispo, San Luis Obispo County, Cal.	10
Oct. 6.	McD. R. Venable	Laguna de San Luis, two miles west of San Luis Obispo City, San Luis Obispo County	50
		Total Black bass	857

DISTRIBUTION OF RAINBOW TROUT.

FROM SISSON HATCHERY.

DATE.	Name of Applicant.	Localities where Planted.	Number of Fish Shipped.
1890.			
July 15..	Chas. Sonntag	Lagunitas Lake, Marin County	12,000
July 15..	.....	Lagunitas Creek, Marin Co., 5 miles below dam	8,000
July 20..	S. V. W. Works Co.	San Mateo Ck., above reservoir, San Mateo Co.	40,000
July 23..	J. B. Randol	Almanitos Creek, near New Almaden Mines, Santa Clara County	18,000
July 23..	J. B. Randol	Guadalupe Creek, Santa Clara County	12,000
July 26..	A. W. Ingalsbe	Smith's Creek, a branch of Calaveras Creek, Santa Clara County	12,000
July 26..	A. W. Ingalsbe	Stevens' Creek, Santa Clara County	9,000
July 26..	A. W. Ingalsbe	Saratoga Creek, Santa Clara County	9,000
July 30..	Mr. Mendenhall	Arroyo Mocho Creek, Alameda County	18,000
July 30..	Chas. Hadsell	Alameda and Calaveras Creeks, Alameda Co.	12,000
Aug. 3..	J. R. Hebron	A branch of the Salinas River, Monterey Co.	12,000
Aug. 3..	Chas. Romie	Arroyo Seco, branch of Salinas River, Monterey County	18,000
Aug. 11..	John T. Doyle	Stevens' Creek, Santa Clara County	18,000
Aug. 11..	John T. Doyle	Adobe Creek, Santa Clara County	12,000
Aug. 15..	George Dennison	Boulder Creek, branch of San Lorenzo Creek, Santa Clara County	18,000
Aug. 15..	George Dennison	Bear Creek, branch of San Lorenzo Creek, Santa Clara County	12,000
Aug. 19..	F. Marriott	Los Gatos Creek, Santa Clara County	30,000
Aug. 23..	J. G. Chesley	San Gregorio Creek, San Mateo Co. ($\frac{3}{4}$ lost)	30,000
Aug. 31..	Dr. C. O. Dean	Paper Mill Creek, Marin County	30,000
Sept. 3..	A. C. Bassett	In branches of Uvas Creek, Santa Clara Co.	30,000
Sept. 7..	A. W. Stott	Sonoma Creek, Sonoma County	18,000
Sept. 7..	T. Lake Harris	A branch of Russian River, near Santa Rosa, Sonoma County	12,000
Sept. 11..	Dr. H. W. Smith	At Chili Bar, South Fork American River, El Dorado County	12,000
Sept. 11..	Dr. H. W. Smith	At Moore's Bridge, South Fork American River, El Dorado County	3,000
Sept. 11..	Dr. H. W. Smith	Near Dennis Johnson's, South Fork American River, El Dorado County	6,000
Sept. 11..	Dr. H. W. Smith	Two Silver Creeks, branches of South Fork American River, El Dorado County	9,000
Sept. 18..	C. F. Haswell	Cache Creek, near Ramsey, Yolo County	30,000
Sept. 23..	F. L. Wooster	In branches of Napa Creek, near Napa, Napa Co.	30,000
July and Aug.	Edson Bros.	Shovel Creek, branch of Klamath River, Siskiyou County	130,000
Aug. 25..	.....	West Fork Sacramento River, Siskiyou Co.	25,000
Aug. 25..	.....	Suloway Creek, branch of Sacramento River, Siskiyou County	25,000
Aug. 25..	.....	Cold Creek, branch of Sacramento River, Siskiyou County	15,000
Aug. 28..	.....	School House Creek, branch of Sacramento River, Siskiyou County	50,000
Aug. 28..	.....	In three creeks at Peter Klink's, branches of Sacramento River, Siskiyou County	50,000
Sept. 28..	.....	West Fork Sacramento River, Siskiyou Co.	50,000
Oct. 1..	.....	Near Dunsmuir, main Sacramento River	50,000
Oct. 2..	.....	Near Mossbra Falls, main Sacramento River, Siskiyou County	41,000
Oct. 3..	.....	Near Little Castle Creek, main Sacramento River, Siskiyou County	40,000
Oct. 6..	McD. R. Venable	San Margarita Creek, branch of Salinas River, San Luis Obispo County	8,000
Oct. 6..	McD. R. Venable	San Luis Creek, San Luis Obispo County	8,000
Oct. 6..	McD. R. Venable	Chorro Creek, empties into Morro Bay, San Luis Obispo County	8,000
Oct. 6..	McD. R. Venable	Laguna de San Luis, near San Luis Obispo City, San Luis Obispo County	10,000
Oct. 6..	McD. R. Venable	Steiner and Venable Creeks, branches of San Luis Creek, San Luis Obispo County	3,000
Oct. 6..	McD. R. Venable	Arroyo Grande, San Luis Obispo County	3,000
		Total Rainbow trout	996,000

DISTRIBUTION OF SALMON BY THE UNITED STATES FISH COMMISSION.

FROM McCloud RIVER HATCHERY.

DATE.	Localities.	Number of Fish.
1888.		
Nov., Dec.	McCloud River	1,000,000
1889.		
Nov., Dec.	McCloud River	84,000
	Total salmon	1,084,000

DISTRIBUTION OF TROUT BY PRIVATE HATCHERIES IN 1890.

KIND OF FISH.	Owner of Hatchery.	Place Planted.	Remarks.	Number of Fish.
Native trout	North Pac. Game and Fish Club.	Sonoma Creek	From eggs taken from trout trapped in Sonoma Creek by permission of the California State Fish Commission	12,000
Rainbow trout	North Pac. Game and Fish Club.	Sonoma Creek and Robinson Creek.	From eggs shipped from the Shovel Creek Hatchery by the California State Fish Commission	90,000
Eastern Brook trout	North Pac. Game and Fish Club.	Robinson Creek.	(As reported by Mr. A. V. La Motte of the North Pacific Game and Fish Club).	25,000
Native trout	Alex. Badlam.	Bear Creek.	From trout trapped in Bear Creek, Napa County, by permission of the California State Fish Commission	15,000
Rainbow trout	Alex. Badlam.	Sulphur Creek.	From eggs shipped from the Shovel Creek Hatchery by the California State Fish Commission	20,000
Rainbow trout	Alex. Badlam.	Lokonoma Creek.	Near Middletown, Lake County, California	20,000
Rainbow trout	Alex. Badlam.	Anderson Creek.	Near Middletown, Lake County, California	20,000
Rainbow trout	Alex. Badlam.	Grizzly Creek.	Near Bradford's, Lake County, California.	10,000
Rainbow trout	Alex. Badlam.	Bradford Creek.	Near Quicksilver Mine, Lake County, California	5,000
Rainbow trout	Alex. Badlam.	Bear Creek.	Near Arcadia, Napa County, California	15,000
Rainbow trout	Alex. Badlam.	Troutdale Creek.	Near Arcadia, Napa County, California (as reported by Mr. A. Badlam)	10,000
Rainbow trout	S. H. Knowles	Bear Creek, branch		
Rainbow trout	S. H. Knowles	S. Lorenzo Creek	From eggs shipped from Shovel Creek Hatchery by California State Fish Commission.	15,000
Rainbow trout	S. H. Knowles	In his private ponds	From eggs shipped from Shovel Creek Hatchery by California State Fish Commission.	15,000
Rainbow trout	S. H. Knowles	Los Gatos Creek, Santa Clara Co.	From eggs shipped from Shovel Creek Hatchery by California State Fish Commission.	10,000
Rainbow trout	Del Monte Hotel.	Carmel River and reservoirs	From eggs shipped from Shovel Creek Hatchery by California State Fish Commission.	40,000
			Total trout.	322,000

RECAPITULATION.

Salmon distributed by California Fish Commissioners	4,478,000
Salmon distributed by United States Fish Commissioners	1,084,000
Eastern Brook trout distributed by California Fish Commissioners	83,000
Tahoe trout distributed by California Fish Commissioners	2,501,000
Rainbow trout distributed by California Fish Commissioners	996,000
Black bass distributed by California Fish Commissioners	857
Rainbow trout distributed by private hatcheries	322,000
Total	9,464,857
Salmon eggs in Sisson Hatchery October 15, 1890	3,000,000

THE FOOD FISHES OF THE CALIFORNIA FRESH WATERS.

By DR. CARL H. EIGENMANN.

The knowledge of the fresh-water fishes of California is at present more limited than that of any other State. It is, therefore, no easy task to present an account of the food fishes which shall at the same time be popular, or free from the technicalities of the ichthyologist, and scientifically exact. My personal observations have been confined to the southern and central counties of California, my explorations having been rather prematurely arrested. I hope, however, either this or the coming year to thoroughly explore every stream and lake in the State, and present you with a fuller report.

There is comparatively a very limited variety of fishes in California. A stream which, in the Mississippi Valley, would harbor seventy-five or a hundred different species of fish, would, in California, scarcely contain twenty. This is due to two causes.

CAUSES OF FISH SCARCITY.

I. Many of our streams become entirely dry during the summer, and no species that does not migrate to the sea or the lower or higher water-courses, can exist in them.

II. It is a law in the distribution of fresh-water fishes that the greater the water system the larger the number of species of fishes found in any of the tributaries. The tributaries of the Sacramento thus have much fewer species than the tributaries of the Mississippi, and the tributaries of the Mississippi much fewer than the tributaries of the Amazon. To be more precise, one naturalist has caught as many species of fishes in one of the tributaries of the Mississippi in a day as there are known from the entire region west of the Sierra Nevada.

NAMES OF FISHES.

I present a list of the fresh-water fishes now known from California, giving both the scientific and popular name:

Ammocetes tridentatus Gairdner. Lamprey.
Ammocetes cibarius Girard. Lead-colored Lamprey.
Acipenser transmontanus Richardson. White Sturgeon.
Acipenser medirostris Ayers. Green Sturgeon.
Catostomus araeopus Jordan. Kern River Sucker.
Catostomus rex R. Eigenmann. Klamath Sucker.
Catostomus occidentalis Ayers. Sacramento Sucker.
Catostomus tahoensis Gill and Jordan. Tahoe Sucker.
Chasmistes brevirostris Cope.
Chasmistes luxatus Cope.
Orthodon microlepidotus Ayers.
Lavinia exilicauda Baird and Girard.
Pogonichthys macrolepidotus Ayers.
Mylocheilus caurinus Richardson.
Mylopharodon conocephalus Baird and Girard.
Ptychocheilus oregonensis Richardson. Sacramento Pike.

Ptychocheilus rapax Girard.
Ptychocheilus harfordi Jordan and Gilbert. Sacramento Pike.
Phoxinus montanus Cope.
Phoxinus orcuttii E. and E.
Phoxinus conformis Girard.
Phoxinus bicolor Girard.
Phoxinus obesus Girard.
Phoxinus crassicauda Baird and Girard.
Phoxinus crassus Girard.
Phoxinus caruleus Girard.
Algansea dimidiata Cope. Chub.
Algansea symmetrica Baird and Girard.
Algansea bicolor Girard.
Luxilinus occidentalis Baird and Girard.
Coregonus williamsoni Girard. Whitefish.
Oncorhynchus gorbuscha Walbaum. Humpback Salmon.
Oncorhynchus keta Walbaum. Dog Salmon.
Oncorhynchus tshawytscha Walbaum. Quinnot Salmon.
Oncorhynchus kisutch Walbaum. Silver Salmon.
Salmo gairdneri Richardson. Steel-head Salmon.
Salmo gairdneri irideus Ayers. Brook Trout.
Salmo purpuratus Pallas. Oregon Brook Trout.
Salmo purpuratus henshawi Gill and Jordan. Tahoe Trout.
Salvelinus malma Walbaum. Dolly Varden.
Gasterosteus williamsoni Girard. Stickleback.
Gasterosteus microcephalus Girard. Stickleback.
Archoplites interruptus Girard. Sacramento Perch.
Cottus asper Richardson.
Cottus semiscabrus centropleurus E. and E.
Cottus gulosus Girard.
Cottus minutus Pallas. "Catfish."

By saying that the number of species of fresh-water fishes is limited, I do not wish to imply that the food fishes are less in number or inferior in quality, but merely that we have less variety, a defect which can be remedied by introducing other species.

DESIRABLE SPECIES TO IMPORT.

The most prominent food fishes of the Mississippi Valley which are not indigenous to California, are the various catfishes, the buffalo, the pickerels, most of the sunfishes, especially the Black bass, the perches, and the bass. Several of these have already been introduced.

In the southern part of the State, where all but the mountain sources of the rivers dry up during the summer, we naturally have but few fresh-water fishes, and any attempts to stock these rivers are, of course, futile. There are but four different species of fishes in the fresh waters of San Diego County, exclusive of the Colorado River. One is a small killifish living in the hot springs of the Colorado Desert, another a small stickleback, a third a small minnow, while the only eatable fish is the *Salmo irideus*, which occurs, as far as known, only in Pala Creek. There is scarcely more variety till we reach the Tulare Basin. *Salmo irideus*, or the Brook trout, is the only food fish south of the Tulare Basin, and it never reaches a large size there. A few species of marine fishes run up the Southern California streams during spring. Chief of these is the mullet. When the dams of the Sweetwater reservoirs were opened, to clear part of the land of the water, large numbers of Sea bass ascended the stream thus formed. With these remarks Southern California may be dismissed.

The remainder of California may be divided into the Tulare, Sacramento, Klamath, and Tahoe regions, each of which has a different set of food fish. They are:

Tulare Region.	Sacramento Region.	Klamath Region.	Tahoe Region.
Kern River sucker.	White sturgeon. Green sturgeon. Sacramento sucker. Salmon. Brook trout. Salmon trout.	White sturgeon. Green sturgeon. Three species of suckers. Salmo purpuratus. Salmon trout. Dolly Varden.	Tahoe sucker. Tahoe trout. Whitefish. Chub.

There are besides these a number which are found in several of these systems. The trouts and suckers are, however, different for each system. Taking up the different species used for food separately:

ACIPENSERIDÆ, OR STURGEON.

The sturgeons are among the largest of the fresh-water fishes. Like the salmon they spend some of their time in the bays and ocean, and ascend the streams to spawn. There are two species found on the Pacific Slope, to which they are confined, those in the eastern rivers being quite distinct.

Acipenser transmontanus Richardson. White Sturgeon.

This sturgeon is said to reach a weight of six hundred pounds. It is almost daily brought into the San Francisco markets. Those offered for sale vary from two to seven feet in length. It is said to reach a length of twelve feet. It is sold in the restaurants as "tenderloin of sole." Large numbers enter all of the large streams from the Sacramento to the Frazier River.

Acipenser medirostris Ayres. Green Sturgeon.

This species is much rarer than the White sturgeon, but is not infrequently brought into the markets. It reaches as large a size as the preceding. The young of these two sturgeons differ greatly from the adult, and the young of the two species are not distinguished in the fish stalls. Dr. Jordan said ten years ago, that this sturgeon was reputed poisonous and not used for food. Although it is still looked upon with less favor than the White, or *the* sturgeon, it is no longer considered poisonous. This property is now ascribed to the young of this or of both species. The old can readily be distinguished from the White sturgeon by its rough skin and by the green band along the belly.

CATOSTOMIDÆ, OR SUCKERS.

The sucker is almost entirely a North American product; of the many species only two are found elsewhere. The suckers found in California are all species peculiar to the western slopes of America. The Buffalo fishes, which belong to this family, are not found on the Pacific Slope. All the species are more or less valuable as food. The California suckers all belong to the genera *Catostomus* and *Chasmistes*, and each river system has one or more which is peculiar to it. The majority ascend small streams in spring to spawn.

Catostomus aræopus Jordan. Kern River Sucker.

This is a small sucker, about thirteen inches long. Very little is known about it as yet.

Catostomus rex R. Eigenmann.

This sucker, reaching a length of three feet, is abundant in Tule Lake, and ascends the Lost River.

A specimen has lately been procured for the Academy of Sciences, through the kindness of Mr. Woodbury, of the Fish Commission.

Catostomus occidentalis Ayers.

This is the common Sacramento sucker, or "the sucker" of the San Francisco market. It is abundant in the whole Sacramento Valley, and descends some distance into tide water. I have taken it at Mare Island. It is not greatly esteemed as food.

Catostomus tahoensis Gill and Jordan. Tahoe Sucker; Red-sided Sucker; Black Sucker.

This sucker is found in the Truckee Basin. It ascends the rivers and rivulets tributary to Lakes Tahoe and Donner in June to deposit its spawn. The very young of this species are quite black; the half grown have a bright red stripe along the sides. In the early part of June these half grown ascend the small rivulets in such abundance that the Indians and others catch large quantities by placing a sack across one of the streams and then driving them down. The larger ones have the red lateral stripe less conspicuous than the half grown. They ascend the rivers at the time the young ones ascend the rivulets. In June none were seen in Lake Tahoe, and but few were being taken in Donner Lake. A few were taken in the Fish Commission's traps in June, and great quantities were seen in Donner Creek, especially in all deep holes.

Chasmistes brevirostris Cope.

This is a small sucker, reaching the length of sixteen inches. It is abundant in Klamath Lake, but does not ascend Williamson's River in spring.

Chasmistes luxatus Cope.

This sucker is also found in Klamath Lake, but reaches a much larger size, nearly three feet. "It ascends the streams in thousands in the spring, and is taken and dried in great numbers by the Klamath and Modoc Indians."

CYPRINIDÆ. The Carps or Minnows.

The American members of this family are mostly small, bony fishes, not fit for food. In the waters of the western slopes some of them attain a large size, however, the Sacramento pike reaching a length of five feet. They are usually very abundant where they are found at all, and form an important item of the food of larger fishes. The most important member of the family is the German carp, a native of Central

Asia, which has been copiously introduced into Europe and America. A large number of the species found in California are more or less valued as food, and are at times brought to the San Francisco markets.

Orthodon microlepidotus Ayres.

This is a small species, reaching a length of fourteen inches. It is abundant in the Sacramento, and is occasionally found in the San Francisco markets.

Lavinia exilicauda Baird and Girard.

This species resembles the preceding in size and distribution.

Pogonichthys macrolepidotus Ayres. Split-tail.

This is one of the commonest of the minnows. It is at once recognized by its widely forked tail.

Mylopharodon conocephalus Baird and Girard.

This is one of the largest of the *Cyprinidæ*. It is said to reach a length of eighteen inches. It is rarely brought to the San Francisco market.

Ptychocheilus oregonensis Rich., and *harfordi* J. and G. Sacramento Pike; Whitefish.

There are two varieties of pike brought to the markets, but they are not distinguished by the fishermen. They are called pike from their resemblance to the true pike, from which they are, however, quite distinct, and to which they are not at all related. *P. oregonensis* is said to reach a length of five feet.

SALMONIDÆ. Salmon, Trout, and Whitefish.

The *Salmonidæ* embrace the most important of our fish, both as regards food and sport. The genera which in California are of greatest value are *Coregonus*, *Oncorhynchus*, *Salmo*, and *Salvelinus*. They can readily be distinguished from our other fresh-water species by the adipose fin, and by the presence of scales. The genera found in California may be distinguished by the following characters:

- a. Jaws toothless; scales rather large; habitually living in fresh water ----- *Coregonus*, or Whitefish.
- aa. Jaws with distinct teeth.
 - b. Anal fin elongate; fourteen to seventeen rays, the tip of the highest ray rarely extending beyond the base of the last ----- *Oncorhynchus*, or salmon.
 - bb. Anal fin shorter; of nine to eleven developed rays.
 - c. Vomer flat; its toothed surface plane; teeth on its shaft in pairs, or in a zig-zag row; tip of the highest anal ray usually extending beyond the tip of the last ray ----- *Salmo*, or trout.
 - cc. Vomer boat-shaped; its shaft strongly depressed; teeth on chevron only ----- *Salvelinus*, or Charms, or Brook trout.

Unfortunately there is a confusion of names due to localities and variation in the species of this family which is frequently misleading. To this is to be added that very little is known as yet concerning the California trouts, so that many writers, basing their remarks on a few pickled specimens, have increased the confusion rather than helped us.

To this must also be added that the excellent figures accompanying many of the reports, and which pretend to give the differences, are based on specimens which differed widely in size, and are therefore misleading. This last fact has undoubtedly much to do with the confusion existing in regard to the Steel-head trout and Brook trout.

The discussions whether a given fish may be a trout or Salmon trout, while edifying to the man talking or writing, does not help us in the least to clear this matter.

In this connection it may be worth our while to examine the remarks of Dr. Günther on the variability of the species of the genus *Salmo*, remarks which Dr. Jordan had occasion to quote when studying these same fishes:

There is no other group of fishes which offers so many difficulties to the ichthyologist, with regard to the distinction of species, as well as to certain points in their life history, as this genus.

The almost infinite variations of these fishes are dependent on age, sex, and sexual development, food, and the properties of the water. * * * The coloration is, first of all, subject to variation, and consequently this character but rarely assists in distinguishing a species, there being not one which would show in all stages of development the same kind of coloration. The young of all the species of this genus are barred, and this is so constantly the case that it may be used as a generic, or even as a family character, not being peculiar to *Salmo* alone, but also to *Thymallus*, and probably to *Coregonus*. The number of bars is not quite constant, but the migratory trout have two (and even three) more than the river trout. When the salmons have passed the "parr" state, the coloration becomes much diversified. The males, especially during and immediately after the spawning time, are more intensely colored and variegated than the females, specimens which have not attained to maturity retaining a brighter silvery color, and being more similar to the female fish. Food appears to have less influence on the coloration of the outer parts than on that of the flesh; thus, the more variegated specimens are frequently out of condition, whilst well fed individuals, with pinkish flesh, are of a more uniform, though bright coloration. Chemistry has not supplied us yet with an analysis of the substance which gives the pink color to the flesh of many salmonoids; but there is little doubt that it is identical with, and produced by, the red pigments of many salt and fresh-water crustaceans which form a favorite food for these fishes. The water has a marked influence on the colors. Trout with intense ocellated spots are generally found in clear, rapid rivers, and in small, open, alpine pools; in the large lakes, with pebbly bottom, the fish are bright-silvery, and the ocellated spots are mixed with, or replaced by, X-shaped black spots; in pools or parts of lakes, with muddy or peaty bottom, the trout are of a darker color generally, and when inclosed in caves or holes they may assume an almost uniform blackish coloration. The brackish, or salt water, has the effect of giving them a bright-silvery coat, without or with comparatively few spots, none of which are ocellated. * * *

With regard to size the various species do not present an equal amount of variation. Size appears to depend on the abundance of food, and the extent of water. Thus, the salmon and the different kinds of Great Lake trout do not appear to vary considerably in size, because they find the same conditions in all the localities inhabited by them.

* * * * *

The proportions of the various parts of the body to one another vary exceedingly in one and the same species. * * * The fins vary to a certain degree. * * *

Finally, to complete our enumeration of these variable characters, we must mention that in old males, during and after the spawning season, the skin on the back becomes thickened and spongy so that the scales are quite invisible, being imbedded in the skin.

Coregonus williamsoni Girard. Whitefish.

This fish is abundant in Lake Tahoe. It spawns in October and November in the tributaries of the lake. During the remainder of the season the adult is probably found in deep water. In June, schools of individuals, nine inches long, were seen on the eastern shores of the lake. In the evening when swarms of gnats were blown into the lake these Whitefish rose to them. A few were caught at the time with small hooks baited with fly. It reaches a length of nearly fifteen inches, and weighs about a pound. It ranks high as a food fish. Mr. Henshaw says of it:

At Lake Tahoe it was found very abundant in October, being met with at that season in all the few streams that rise from the lake. * * * This month, and later, is

their spawning season, and as they pass up many are intercepted by the Indians, who find a market for considerable numbers in the settlements and logging camps about the lake. Having constructed a suitable net of mosquito netting, which is affixed to a long pole, the Indian, accompanied by one or two squaws, proceeds to the stream where it is sufficiently narrow for his purpose. Placing the net at the head of one of the deep sandy-bottomed pools which are found at every turn of the stream, he awaits quietly till all the fish near by have been frightened into it by the squaws, who advance from below, and beat the water with sticks. With a sudden scoop he usually empties the pool, taking perhaps from six to a dozen fish from each. All that we saw caught in this manner were quite small, averaging perhaps ten inches in length, but they attain a much larger size.

ONCORHYNCHUS. Pacific Salmon.

The members of the genus *Oncorhynchus* are confined to the North Pacific and the rivers flowing into it. They are generally termed salmon without distinguishing them from one another, or from the salmon of New England and Europe. They are by far the most important food fishes, and the Quinnot salmon probably surpasses in value all of our other fresh-water fishes combined.

Four of the five species known are found in the Sacramento; one of these is, however, only occasionally taken.

All of these species live in the sea, and ascend the rivers only at the spawning season. The Quinnot salmon enter the Sacramento in the spring and summer, and the run ceases, according to Jordan, in October. The larger individuals enter the river first, and the smaller ones, two feet long, do not run till July and August. Jordan says:

The spring salmon ascend only those rivers which are fed by the melting snows from the mountains, and which have sufficient volume to send their waters well out to sea. Such rivers are the Sacramento, Klamath, * * * etc.

Those salmon which run in the spring are chiefly *adults* (supposed to be at least three years old). Their milt and spawn are no more developed than at the same time in others of the same species which will not enter the rivers until fall. It would appear that the contact with cold fresh water when in the ocean, in some way caused them to turn toward it and to "run" before there is any special influence to that end exerted by the development of the organs of generation.

High water on any of these rivers in the spring is always followed by an increased run of salmon. * * * The average weight of the Quinnot in the Sacramento in the spring is sixteen pounds.

Those fish which enter the rivers in the spring continue the ascent until death or the spawning season overtakes them. Probably none of them ever return to the ocean, and a large proportion fail to spawn. They are known to ascend the Sacramento as far as the base of Mount Shasta, or to its extreme headwaters—about four hundred miles.

At these great distances, when the fish have reached the spawning grounds, besides the usual changes of the breeding season, their bodies are covered with bruises, on which patches of white fungus develop. The fins become mutilated, their eyes are often injured or destroyed, parasitic worms gather in the gills, they become extremely emaciated, their flesh becomes white from the loss of oil, and as soon as the spawning act is accomplished, and sometimes before, all of them die.

Dr. G. Brown Goode says of this fish:

Fifty years ago it was hardly known, except to students of natural history. Now it is known and eaten almost all over the world, for there is hardly a port in the world where ships have not carried the canned salmon of the Columbia, which is the same fish under a different name; and not only has this fish, in the form of food, traveled nearly all over the world, but the living embryos of the California salmon have been transported to England, France, Germany, Belgium, Denmark, Russia, Australia, and New Zealand, so that there is probably no one fish inhabiting a limited locality which is known over the world in so many different places as the California salmon.

The four species of *Oncorhynchus* found in the Sacramento are distinguished by the following characters:

- | | |
|--|-------------------|
| a. Scales small, lateral line more than 200 | <i>Gorbuscha.</i> |
| aa. Scales large, lateral line 125-155. | |
| b. Pyloric coeca 50-80; lateral line 125-135 | <i>Kisutch.</i> |

bb. Pyloric cæca 140 or more.

c. Anal rays 13-14; branchiostegals 13-14.....*Keta*.

cc. Anal rays 16; branchiostegals 15-19.....*Tchawytcha*.

Oncorhynchus gorbuscha Walbaum.

This, the Humpback salmon, is only occasionally taken in the Sacramento and Columbia. It runs every other year in Puget Sound. It reaches a weight of three to seven pounds.

Oncorhynchus kisutch Walbaum. Silver Salmon.

This salmon runs in the Sacramento in summer and fall; it does not exceed eight pounds in weight, and many are doubtless confounded with the young of the Quinнат. From this they are, however, readily distinguished by the number of cæcal appendages about the stomach, which scarcely exceeds seventy-five in this species, while there are more than one hundred and twenty-five in the Quinнат. Mr. Chas. Ohm took the young of this species, five and seven eighths inches long, in Paper Mill Creek, on March 24, 1890.

Oncorhynchus keta Walbaum. Dog Salmon.

I have not yet seen any fresh examples of this species. It is said to be abundant in the fall from the Sacramento northward, when it ascends all the streams for a short distance. It does not begin to "run" until its sexual organs are well advanced in development and its flesh proportionately deteriorated. For this reason it is of no great economic value.

Oncorhynchus tshawytcha Walbaum. Quinнат Salmon.

This is the salmon par excellence, and, like *Salmo salar*, "stands pre-eminent, like a Highland Chieftain, needing no name save that of his clan." It is still "The Salmon," "Quinнат Salmon;" and "King Salmon" when ready to be eaten, "Columbia Salmon" or "Alaska Salmon."

What I have said under the head of the genus *Oncorhynchus* in general applies to this species especially. I have caught the very young of this species (about two inches long) at Mare Island, on April 17, 1890.

SALMO.

The species of this genus are variously named by the fishermen. The young taken in the mountain streams are all Brook trouts, or Rainbow trouts; the old ones are Trout, Steel-head, Salmon trout, and even Salmon, and a special series of names has been invented in Lake Tahoe.

It is concerning the members of this genus that there was such discussion in the papers during last spring. For practical purposes, all the species of this genus may be classed as one, and covered by a general law protecting trout. All the rules of the angler will not suffice in distinguishing the species, and such practical experiments as scraping the scales with the thumb nail to distinguish Brook trout from Salmon trout, are perfectly useless. Every angler knows how variable the trouts are in the different streams and ponds, and Dr. Günther's words, quoted above, are but the expression of the experience of every naturalist, as well as of every angler. Through the courtesy of Mr. Charles Ohm, I

have been able to examine about seventy-five Brook trouts from different streams, and others have come into my hands from Mr. Belding. Although the alcohol has obliterated most of the color markings, it can still be seen that no two streams have trout with exactly the same characters. To add to the confusion, the young of the salmon greatly resemble the trouts, and the old trouts greatly resemble the salmon. Young salmon have been brought to me as Brook trouts; and I bought a splendid Brook trout, nineteen inches long, which the fish dealer declared was a salmon, and willing to prove it by as large a bet as I would name.

I do not know where trouts have been planted, and where those so planted were procured, but the native species are distributed as follows:

1. The Brook trout, or Rainbow trout (*Salmo gairdneri irideus* Gibbons), in all mountain streams west of the Sierra Nevada from Mount Shasta to Lower California.

2. The Steel-head (*Salmo gairdneri* Richardson), from the Sacramento northward.

3. The Northern trout (*Salmo purpuratus* Pallas), from Mount Shasta northward.

4. The Tahoe trout (*Salmo purpuratus henshawi* Gill and Jordan), in the Truckee Basin, including Lakes Tahoe, Donner, Pyramid, and possibly Eagle.

It is thus seen that three of the trouts inhabit contiguous territory, while the other, the Steel-head, overlaps the territory of two of the species. There are, however, so many forms which are intermediate between the Brook trout proper and the Steel-head that the former may be looked upon as simply a southern form of the latter, or, conversely, the latter a northern form of the former.

These species and varieties are extremely hard to distinguish unless specimens of the same size are at hand. They may be determined by the following technical characters arranged by Dr. Bean:

a. No hyoid teeth.

b. Anal rays, 12; depth of body equals length of head in young; tail of adult truncate *S. gairdneri*; Steel-head.

bb. Anal rays, 10; depth of body much exceeds length of head in young; tail of adult forked *S. gairdneri irideus*; Brook, or Rainbow trout.

aa. Hyoid teeth.

c. Head short; scales, not more than 170; gill rakers, 8-12; cœca, 20 *S. purpuratus*; Northern trout.

cc. Head long, conical; scales, sometimes 184; gill rakers, 9-14; cœca, 50-60 *S. purpuratus henshawi*; Tahoe trout.

Salmo gairdneri Richardson. Steel-head Salmon.

This trout is not infrequently brought into the San Francisco market during the close season. At other times it is not so abundant, and in summer and fall it is rarely seen. It reaches a weight of twenty pounds. The California Academy of Sciences possesses a large specimen, the gift of Mr. Charles Ohm. It measures two feet five inches in length, and is a spent male.

There are several others smaller than this in the Academy's collection, presented by the same gentleman. It is more slender than the Rainbow trout or the Quinnsat salmon, and does not ascend streams to any great distance.

Very little or nothing is known of the habits and life history of this species, and any notes on its migration, etc., ought always to be kept.

The young have very rarely been found, a fact which has led many to believe that the Brook trout are only the young of this species, especially as the latter are always, or usually, found in abundance in the same streams.

Salmo gairdneri irideus Gibbons.

This is the Rainbow or Brook trout proper. It is also known by various other names. There is no difficulty in distinguishing the adult of this species from the adult of the Steel-head, but the half grown are remarkably alike, and intergradations of all sorts are abundant. It does not attain nearly the size of the Steel-head, the largest recorded weighing but six pounds. These large examples are very rare. I have seen only one in the markets of San Francisco, and, as I have stated above, this was represented to be a young salmon.

The young are caught in large numbers in all the trout streams in Central and Southern California. It probably does not enter salt water as readily as the Steel-head, but it probably runs into the sea from short rivers which are dry in summer, and from others having a continuous stream of clear water.

It is a most excellent table fish, but not caught in quantity for the market. Its chief value seems to be to offer sport to anglers, and this is said to be of a very tame kind. It has been extensively introduced and seems to flourish in many eastern streams. Specimens have been taken in salt water near Oakdale, Long Island.

It varies more in size, color, etc., with the stream it inhabits than any other fresh-water fish.

Mr. Henshaw says of this species:

This is the common Brook trout of the small mountain streams of the Pacific Slope, and up to an altitude of nine thousand feet it is the rare exception to find a suitable stream that is not well stocked with it. Upon many of them, as the tributaries of the South Fork of the Kern River, these trout are found in very great abundance, each pool and rapid numbering its finny denizens by the score. They may be taken in any sort of weather, at any hour of the day, by almost any kind of bait. During the heat of the day they frequent almost entirely the deeper pools, lying under overshadowing rocks or in the shade of some convenient log. In early morning or late afternoon they come out and run more into the shallows and rapids, under which circumstances they bite best and afford the finest sport. Like the average Brook trout the species rarely attains any considerable size, ranging from four to eight or more inches in length. Their colors are usually very bright, and for beauty this species takes rank among the foremost of its kind, and has well been called the Golden trout. In this respect, however, it is subject to the usual variation obtaining in the family, the change of color not only accompanying a difference in locality, but being plainly discernible in individuals taken in different parts of the same stream not far distant. In fact, as a specific character, color in this family seems to be at its lowest value. The character of the bottom and water itself has much to do with this, and I remember to have fished in a small rivulet on one of the sub-alpine meadows not far from Mount Whitney, whose sluggish waters flowed over a bottom of dark mud, in which the color of the trout simulated very closely its hue; they had lost nearly all the flashing iridescent tints characterizing the same species caught but a few hours before in another stream, and had become dull and somber-hued. Accompanying this change of color was a correspondingly noticeable difference in the habits and motions, and the several dozen trout caught that evening for supper were taken out by the hook with the display of very little more gaminess than would be noticed in so many Horned pout. On the contrary, in the clear rapid current of the mountain stream, a flash of sunlight is scarcely quicker than the gleam of gold and silver, seen for a single instant, as the whirling waters are cut by one of the trout as he makes a rush from his lurking place for some chance morsel which is being borne past him. The western trout are rarely as shy as their relatives of eastern waters, and because of their numbers and consequent scarcity of food are apt to be less fastidious; yet even when most abundant due caution must be used if one would be successful, and not every one can catch trout even in the West. With the proper care in concealing one's self a pool may be almost decimated ere the alarm will be taken, and I have seen fifteen fair sized trout taken from a single small pool in quick succession.

Salmo purpuratus Pallas. Oregon Brook Trout; Salmon Trout; Lake Trout.

I know nothing personally of this fish. It "is very abundant in all the waters north of Mount Shasta, and through the Great Basin and Rocky Mountain region; occasionally southward to Santa Cruz." It seems to have skipped California, except some parts of it; is found in abundance to the north of us, and extends farther south than any other salmon, having been "obtained by Professor Luften from streams of the Sierra Madre, Mexico, at an elevation between eight and nine thousand feet in the southern part of Chihuahua, near the boundaries of Durango and Sinaloa." It occasionally reaches a weight of twenty-five pounds in the Columbia. These large ones are known as Steel-head, the young as Brook trout, and the partly grown as Salmon trout. It is of considerable importance economically, and its introduction into all streams suitable to it is to be recommended.

Salmo purpuratus henshawi Gill and Jordan.

This, the Lake Tahoe trout, is of greater economic importance than the others. It is abundant in the San Francisco markets all through spring. The fishermen of Lake Tahoe keep their catch alive till they have a sufficient number to warrant a shipment, when they are killed, boxed, and shipped to San Francisco. The past year one company had the entire control of the Tahoe catch.

This fish is known under various names to the fishermen and anglers of Lake Tahoe, who consider the variations, due to age, sex, depth of water, and character of bottom, all of specific value. If we keep in mind, however, the statements made by Dr. Günther, all the variations can easily be explained. The trout reported to me while at Lake Tahoe last June were: First, the Big Black trout, reaching a weight of twenty-nine pounds, and spawning in the rivers in April and May. Second, the Red trout, probably not exceeding a weight of seven pounds, which spawns in the streams from May to the first of August. Third, the Pogy or Porgy, weighing one and a half to two pounds, and spawning the latter part of August and during September. Fourth, the Silver trout, reaching nearly seventeen pounds in weight, and spawning in the lake in October and November. Fifth, the Yellow Belly or Sulphur Belly, the time and place of spawning not determined. Sixth, the Brook trout, found in the streams about Lake Tahoe.

In this connection I can but quote, with slight modification, what we have said elsewhere—"San Francisco Chronicle," August 31, 1890:

The so called Big Black trout we did not see. The eggs of this large trout are larger than those of the Red trout, and grayish in color; the young are also gray. The eggs and young of the Red trout are almost cherry red, and the pigment of the young, reared in the hatchery, is much more developed than in those of the big trout. The facts brought to our notice would seem to indicate that the big trout is a species distinct from the Red trout. It would not, however, be surprising if this should prove to be only the adult form of the Red trout. The difference in the size of the egg, and in the time of spawning, is not without its parallel in sea fishes, and the difference in color is, as we have seen, easily accounted for.

The Red trout has meat of a light pink color. The branchiostegal membrane is bright red. The females which have deposited their ova are quite silvery, while the males which have spawned are of a dark cherry color on the sides, darker above and lighter below. All the numerous individuals seen were pretty uniformly spotted.

The Porgy is unquestionably the young Red trout during its first spawning season. "It is so fat that it may be fried in its own grease." The later time of spawning is readily accounted for by the youth of the Porgy, while its place of spawning (in the lake) is made

a necessity by the fact that, in all but unusually late seasons, like the present, the streams emptying into the lake become dry by the time this fish is ready to spawn. In color the Porgy is intermediate between the male and female trout, but the spots are much less regular.

The Silver trout may readily be distinguished at a glance in life, but the Porgy is readily taken for a Silver trout when life is extinct. Two Porgies purchased at the wharf of Tahoe City appeared to be Silver trout when they reached our hotel. The meat is of a salmon color. Many of the Silver trout are, without any doubt, the Red trout at a stage younger than the Porgy. If the assertion be true, that the Silver trout attains a weight of seventeen or eighteen pounds, the lack of color is doubtless due to the surroundings.

The Yellow-belly is a Silver trout from a different bottom, which has changed the silvery to yellow.

The Brook trout of this region are merely the young of the Red trout. They are quite distinct from the true Brook trout (*Salmo irideus*).

It will thus be seen that the trout of Tahoe belong at most to only two species, and very possibly to a single one.

At the fish hatchery of the State Fish Commission, located at Tahoe City, thousands of trout are now being hatched. The troughs at the hatchery are filled with the trout in all stages of development, from the currant-like egg to the food-hunting fish an inch long, which has lost its yolk-sac, or source of nourishment.

Salvelinus malma Walbaum. Dolly Varden; Red-spotted Trout.

This is another species concerning which I have no personal knowledge. It is indigenous to the region west of the Cascade Range, from Northern California to Alaska. According to Goode it is the most important of our chars, next to the Eastern Brook trout. It descends to the sea, and reaches the weight of fourteen pounds, but in the mountain streams it spawns at a length of six or eight inches. They are reported to spawn late in the fall in the rivers.

CENTRARCHIDÆ. The Sunfishes.

Archoplites interruptus Girard. Sacramento Perch.

This is the only California representative of the numerous species of sunfishes inhabiting North America. It is found throughout the Sacramento and San Joaquin Valleys, and descends to tide water. It is not frequently brought into the market, and is of no great economic value.

HOLCONOTIDÆ. Viviparous Perches.

Hysterocarpus traski Gibbons. Viviparous Perch.

The economic value of this fish is entirely incommensurate with its scientific interest. It does not reach a large size. It is found throughout the Sacramento Valley. It is the only American fresh-water representative of the viviparous family *Holconotidæ*, of which there are so many species along the entire coast of California. While all our other fresh-water fishes deposit spawn, this species brings forth living young in an almost mature stage.

Its characters have been so changed, probably by its permanent stay in fresh water, that it now represents a sub-family quite distinct from its marine relatives.

COTTIDÆ. Sculpins.

The members of this family are mostly marine, and species of *Cottidæ* abound along the entire coast of California. Some of them reach a large size, and are brought into the markets; but most of them are small and of no importance.

COTTUS. Bullheads; Miller's Thumbs.

The remaining species of fresh-water fishes are all small, and only indirectly of economic interest. Our account of the one found at Lakes Tahoe and Donner will serve for them all.

Large individuals (about seven inches is large for this fish) are especially abundant near the hatching house of the Fish Commission, where the dead trout eggs are thrown each day. A handful of trout eggs is certain to bring a bullhead from under every stone in the vicinity. This fish is related to the *Oligocottus analis*, a marine species of bullhead living in tide pools on the coast of California, which changes, according to food and surroundings, from a grass-green to gray of various patterns. The changes in color of *Cottus minutus* are no less striking. Over a muddy bottom this species is quite black, assuming a drab or "sand color" over sandy bottom; while over rocks and pebbles it is conspicuously banded with light and dark. The bullheads are very destructive to the trout. They lie in wait for them at the mouths of creeks for the descent of the young ones. The bullheads, in their turn, form the principal food of a species of *Eutenia*, abounding on the shores of the lake.

WHY SALMON ARE SCARCE.

LETTER FROM DR. H. W. HARKNESS, PRESIDENT OF THE CALIFORNIA ACADEMY OF SCIENCES.

Upon reëxamining the subject, with the view of determining the cause for the scarcity of salmon in our rivers, we find that the principal agent engaged in their destruction is man.

Man accomplishes this in various ways — by the fouling of the rivers by manufactories, by dams or other obstructions, and chiefly by seine fishing.

The modern appliances are so perfect, and the pursuit of fish so active and persistent, that we are convinced that should the fishermen comply with the law in every particular, even then the salmon would disappear altogether from our waters; but when we take into consideration the fact that all unfair means are resorted to for the purpose of increasing the catch, we are no longer at a loss to account for their scarcity.

If our fishermen would but pay a decent respect to the laws, and furthermore would capture only a sufficiency for the supply of the market with fresh salmon, our rivers, with assistance from the State in the way of restocking at intervals, might still continue to be productive for an indefinite period.

There is one source of waste, as we look upon it, however, which should be prevented by the authorities, viz.: the canning interest. From time to time the Government has expended large sums of money for the purpose of stocking our rivers with salmon. This is the act of a paternal government with the sole idea, as we view it, of furnishing to all of the inhabitants of the State, so far as it is possible to do so, an opportunity for supplying the table with a cheap, nutritive article of food.

The taxpayers at large are called upon to pay the cost, and all are alike to share in the benefit. Let us examine for a moment, to see if there is a fair distribution of the results of this outlay. If, as has been previously stated, after the stocking of the rivers, fishing was conducted in accordance with the laws (fishing being prohibited during certain days, in order that a percentage of the breeding fish might escape); also, that the close season should be strictly observed, and further, that the exportation of fish should cease under these conditions, we believe that our rivers would, for an indefinite period, continue to furnish salmon in quantity sufficient to meet the home demand.

No sooner, however, does the salmon appear in tolerable abundance than the canner begins his work. Either by hiring boats and fishermen himself, or by offering tempting rewards to the fisherman for his catch, he is enabled to cover the river with boats in such numbers as to capture a large proportion of the product of the stream before they can pass his establishment.

If the fish so captured from the Government preserves were distributed as canned provisions among our people, there would be some slight

excuse; but when we come to learn that all, or nearly all, are shipped away to foreign countries, we begin to realize that the people are being defrauded of their just dues.

The canner may claim that he is realizing but a small percentage of profit, or he may affirm that he has met with material loss, yet this has nothing to do with the subject. He is responsible for the increase of the price of fresh fish, and he is to be blamed for the final exhaustion of the rivers. There is no river, however rich it may be in salmon, but must eventually become impoverished if the canner is to be allowed to pursue his vocation, even when under limited Government surveillance.

During one year, some time back, there were two thousand men and one thousand boats engaged in the salmon fisheries of the Sacramento River alone. How many of these were employed by the cannery we are unable to determine. As his means of canning fish are practically unlimited, and he has the world for a market, the canner has but to increase his fishermen until the stream is so far exhausted as to be of no further value.

In our judgment, the business of the canner should cease, or else the Government should abandon the plan of stocking the rivers when the results are so unsatisfactory.

We feel that this is a question of the greatest importance, and that the attention of the authorities should be called to it, and that the facts should be set forth so clearly as to induce them to take steps to remedy the evil.

To illustrate the case still more fully, we will suppose that our rulers should, while acting in the capacity of a paternal government, determine to set aside a large tract of land for a deer park, where large bands of these animals might be cared for with the view ultimately that venison should be furnished cheaply at certain seasons to the people of the State. What would be said of the economy of such a proceeding if the Government, during the hunting season, should permit individuals to kill the deer without hinderance for the purpose of canning the flesh so secured and sending it away to a foreign market?

TENTH ANNUAL REPORT

OF THE

STATE BOARD OF PRISON DIRECTORS

OF THE

STATE OF CALIFORNIA,

FOR THE

FORTIETH FISCAL YEAR, ENDING JUNE 30, 1889.



SACRAMENTO:

STATE OFFICE : : : J. D. YOUNG, SUPT. STATE PRINTING.
1890.

STATE BOARD OF PRISON DIRECTORS.

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ED. REDDY	Adjutant.
F. C. DURANT, M.D.	Resident Physician.

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BRAINARD F. SMITH	Secretary.

REPORT.

NOVEMBER 15, 1889.

To his Excellency R. W. WATERMAN, Governor of the State of California :

The State Board of Prison Directors beg leave to submit herewith their annual report for the fiscal year ending June 30, 1889, with copies of the reports of the Wardens and Clerks of the respective prisons at San Quentin and Folsom.

Your Excellency will find that these reports are very complete, covering in detail a history of the work accomplished in the prisons during the year just past. For this reason, much of the labor in the way of a full report, that otherwise would fall upon us, has been saved ; still, however, we shall trespass upon your time to call your attention, briefly, to some of the more salient features connected with prison management.

At San Quentin, in years past, various industries have been followed, but in February of this year it was deemed best to abolish all industries, save the manufacture of jute fabrics. Accordingly, after full consultation with your Excellency, a resolution was passed abolishing all kinds of productive labor, save that just mentioned. From that time on, the labor of convicts at San Quentin has been devoted solely to the manufacture of jute goods.

The system of working convicts, both by day and by night, has proven a complete success.

This is no longer an experiment, but the facts and figures submitted in the annexed reports, as well as the examination made by the expert appointed by yourself, show that the cost of bags manufactured by night is practically the same as the price of those manufactured by day.

A glance at the Clerk's report will show that not only has this industry been useful in saving farmers from paying exorbitant prices for bags, but at the same time has been highly remunerative to the State.

In our last report we made suggestions for the purchase of additional land and the erection of new buildings. The matters there submitted were very fully considered by the Legislature, and the result was that appropriations were made for the purchase of additional tide lands and for the erection of necessary structures.

Most of the purchases authorized by the appropriations mentioned have been made.

The Legislature, recognizing the necessity of making provision for insane criminals, passed an Act, appropriating a certain sum for that purpose. It will not be questioned, at this day, that a separate institution is necessary for this class of prisoners. The testimony of Superintendents of insane asylums shows that these institutions have not the facilities for properly guarding insane criminals, nor has a prison the opportunity for treating them properly, from a sanitary point of view. We regret to say, however, that the appropriation is scarcely adequate to give to the State an institution of the size and character that this should be. Plans have been

drawn for the erection of a building, at an estimated price that will bring it within the limits of the appropriation. These plans have not, however, yet been definitely adopted by the Board.

Plans have been drawn and adopted for the other buildings, for which appropriations were made by the last Legislature, and some of the structures are now in process of erection.

At Folsom, the work on the dam and canal, mentioned in our previous report, has been, during the past year, vigorously prosecuted.

It is unnecessary at this time to speak of the value the State will derive from this work when completed. The report of A. W. Von Schmidt, printed in our last report, removes this fact beyond the realm of conjecture.

A considerable portion of the tract of this prison has been set out in fruit trees, and a still greater quantity will be set out during the coming year.

An Act of the Legislature, last session, made an appropriation of \$112,500 for the purpose of purchasing materials for the construction of a power house, in order to utilize the waters of the American River for power purposes, and also for the purchase of wheels, machinery, and pipes necessary to supply the prison with water, and for piping necessary to supply the power for running electric lights for the prison, and iron-stone pipes for sewers.

Some time ago the Board employed P. A. Humbert, civil engineer, to draw up plans and specifications for a power house, and for the construction of machinery to utilize the power belonging to the State. These plans and specifications have been submitted to the Board, and work thereon will soon be commenced.

Among other duties placed upon the Board of Prison Directors, at the last session of the Legislature, was that of purchasing a site for a School of Industry for boys, at or near Ione.

We refer to the fact with some pleasure, that the views contained in our last report, showing the absolute necessity for the establishment of such an institution in this State, which were in full accord with those expressed in your message to the Legislature, were received and acted upon by the members of that body.

The Act referred to provided that the site to be selected should, among other things, have water facilities sufficient for the uses of said school, and for power in operating machinery.

This clause has given the Board a great deal of difficulty, for the reason that it requires, to some extent, the examination of an expert to determine what facilities each site possesses in this respect.

For the purpose of determining this fact, the Board employed A. W. Von Schmidt to make an examination, and his report has just been received, but no action thereon has yet been taken.

The urgent necessity for the establishment of an institution for the young boys who have not yet become adepts in crime, in order that they may be weaned from their evil paths, imbued with sentiments of morality, and taught some useful occupation, by which they may, in after years, earn their livelihood, is patent to every one who has given the least attention to the subject.

States that cannot compare with California, either in wealth or population, have schools of this character, and California is really behind her sister States in the matter of reformatory institutions.

It is useless to dilate upon this subject further, for your Excellency was among the first to call to the attention of the people of this State the necessity for the creation of such a school. The pages of this report will show

that many are found in both our prisons, who ought to be in an institution of this character, but, unfortunately, no provision is made elsewhere for them. When a young boy is convicted of felony, no institution, under the present condition of affairs, can receive him but the State Prison.

In conclusion, permit us to say, that we hope, before submitting our next report, to have carried out fully all the measures of improvement and reformation in our penal institutions spoken of in our last report, or for which provisions were made by the Legislature, and that we desire to acknowledge the many courtesies that you have extended to us.

Respectfully submitted.

ROBERT T. DEVLIN.
CHARLES SONNTAG.
EDGAR J. DEPUE.
JOS. CRAIG.

REPORT OF THE WARDEN

OF THE

State Prison at San Quentin, California.

WARDEN'S REPORT.

WARDEN'S OFFICE,
SAN QUENTIN PRISON, August 1, 1889. }

To the honorable State Board of Prison Directors :

GENTLEMEN: It is very gratifying to me, in presenting my second annual report as Warden of the State Prison at San Quentin, embracing the period from July 1, 1888, to June 30, 1889, to be able to call your attention to the very satisfactory financial condition of the prison, as shown by the tabulated statements of the Clerk accompanying this report. The condition is all the more gratifying because an extraordinary return from the Manufacturing Department was needed to supplement the scant appropriation for the support of the prison for the next two years; and because, by this unprecedented success, it is possible to return to the State Treasury a portion of the surplus. The tables of the Clerk's report show the following resources on the thirtieth of June, 1889:

Cash in the State Prison Fund	\$168,923 66
Cash on hand and in bank	45,863 02
Due from sundry debtors	4,934 39
	<hr/>
	\$219,721 07
Less liabilities on account unpaid bills and salaries	26,951 18
	<hr/>
Leaving a net surplus of available cash resources at the end of the year of....	\$192,768 89

The amount of net earnings during the past year is larger than that of previous years, being \$103,098 59.

Against \$89,945 67 for the year ending June 30, 1888.
52,158 76 for the year ending June 30, 1887.
60,094 16 for the year ending June 30, 1886.
58,986 89 for the year ending June 30, 1885.

This increase in earnings was accomplished in the face of the loss of income from the sash and door factory—regarded as the most profitable industry ever pursued in this prison. By order of your honorable Board, the manufacture of doors, sashes, and blinds was peremptorily and finally discontinued on the first of March, and by that act an income of \$25,000 to \$30,000 a year was at once cut off. The action was taken to satisfy those who claimed that the labor of free citizens was interfered with and injured by the employment of our convict force. The operatives who were thrown out of employment by shutting down the sash and door factory were at once assigned to duty in the jute mill, and the result of their labor at the end of the year demonstrated that any apparent pecuniary loss sustained by the State on account of the abandonment of this discarded industry was fully made up by the increased earnings of the Jute Department, as shown in the following table, containing a synopsis of the output, sales, and profits realized from the sale of jute goods during the past three years:

	First Year Ending June 30, 1887.	Second Year Ending June 30, 1888.	Third Year Ending June 30, 1889.	Increase Second Year over First — Per Cent. —	Increase Third Year over Sec- ond — Per Cent.
Number of yards burlap man- ufactured.....	2,180,047	2,951,414	3,619,015	35 $\frac{4}{10}$	22 $\frac{62}{100}$
Manufacturing expenses, ex- clusive of value of raw jute.	\$36,805 $\frac{17}{100}$	\$48,648 $\frac{17}{100}$	\$69,841 $\frac{26}{100}$	32 $\frac{18}{100}$	43 $\frac{56}{100}$
Sales	\$131,625 $\frac{23}{100}$	\$180,047 $\frac{40}{100}$	\$273,510 $\frac{41}{100}$	36 $\frac{79}{100}$	51 $\frac{3}{100}$
Profit and loss.....	\$17,240 $\frac{10}{100}$	\$51,120 $\frac{10}{100}$	\$80,926 $\frac{80}{100}$	196 $\frac{62}{100}$	58 $\frac{3}{100}$

The apparent difference in this table between the rates of increase in output and manufacturing expenses during the past year over those of the previous year, is due to the very large advance at the beginning of the year in the price of coal required to operate the mill, this article forming one of the principal items in the manufacturing expense. The price of coal during the year ending June 30, 1888, had been \$6 65 per ton, whereas during the year just ended the price of the same coal was \$9 per ton. During the thirty-ninth fiscal year, ending June 30, 1888, the mill was operated with but one shift of men for eight and one half months, and with two shifts for three and one half months; and consumed coal to the value of \$13,301 82, or almost exactly two thousand tons at \$6 65. During the whole of the past year the mill was operated with two shifts of men, and although consuming only about 50 per cent more of coal (two thousand nine hundred and sixty-six tons), the value of the same was increased to \$26,697 79, a fraction over 100 per cent.

To more clearly demonstrate this, the manufacturing expenses for the two years were, as stated in above table:

	Year Ending June 30, 1888.	Year Ending June 30, 1889.
Manufacturing expenses.....	\$48,648 17	\$69,841 26
Deduct value of coal used	13,301 82	26,697 79
Leaving	\$35,346 35	\$43,143 47

Or an increase of 22.06 per cent in all expenses incurred in manufacturing jute goods, excepting cost of raw jute and coal, against an increase of 22.62 per cent in the output. This would indicate that all these expenses remained about the same, and that the increased cost of production is due entirely to the advance in the price of coal.

The sales of grain bags were conducted during the past season on the same plan as that adopted last year, and it is most gratifying to me to say that our efforts to sell only to direct consumers as far as possible, met the cordial approval and coöperation of the farmers of this State, who signified the same by sending in their orders for bags to such an extent, that at times they covered a large quantity in excess of our stock on hand, and in several instances we were compelled to decline acceptance of an order, as we could not guarantee against accident for so long a time in advance of possible manufacture.

A detailed statement of the operations of the jute mill is herewith submitted:

STATEMENT OF OPERATIONS OF JUTE DEPARTMENT FOR THE FISCAL YEAR ENDING JUNE 30, 1889.

Raw jute on hand July 1, 1888.....	5,302 bales.
Raw jute purchased and received since.....	3,945 bales.
Total.....	9,247 bales.
Less raw jute on hand June 30, 1889.....	1,408 bales.
Total.....	7,839 bales.
Less number of bales rejected on account damage.....	10½ bales.
Used in manufacturing during the year.....	7,828½ bales.
7,828½ bales at 400 pounds equals.....	3,131,400 pounds.
Less increase in amount of raw jute in process of manufacture on June 30, 1889.....	39,344 pounds.
Over amount on July 1, 1888.....	35,120 pounds.
	4,224 pounds.
Net amount of raw jute used during the year.....	3,127,176 pounds.

Goods Manufactured.

36,398 cuts = 3,567,004 yards 45-inch burlap; 525 cuts = 52,011 yards 40-inch burlap; total, 3,619,015 yards.

Three-ply twine, 4,148 pounds; five-ply twine, 121,809 pounds; of which amount 47,694 pounds were used in sewing bags, and 4,250 pounds in baling goods.

Number of grain bags made during the year out of burlap manufactured, 3,052,433.

Spinning and Weaving Expenses.

Coal.....	\$26,697 79
Jute oil.....	1,830 40
Sizing.....	3,392 14
Cotton twine.....	1,730 84
Machine oils and engineer's supplies.....	1,206 55
Tools and repairs.....	10,048 72
Gas.....	4,446 57
Salaries.....	12,115 26
Insurance.....	728 80
Miscellaneous (board of employés, stationery, etc.).....	1,280 33
Raw jute in process of manufacture (dye stuffs).....	111 82
	\$63,589 22

Less expense incurred in sewing bags and keeping sewing machines in repair:

Say five per cent of coal.....	\$1,334 89
Say ten per cent of sizing.....	339 21
Say one hundred per cent of cotton twine.....	1,730 84
Say five per cent of machine oils, etc.....	60 33
Say ten per cent of tools and repairs.....	1,004 87
Say five per cent of salaries.....	605 76
Say ten per cent of gas.....	444 68
Say five per cent of miscellaneous.....	64 02
	5,584 60

Net expense of spinning and weaving 3,619,015 yards of cloth..... \$58,004 62
Or $1\frac{6.03}{1000}$ cents per yard.

Sewing Expenses.

Percentage of gross spinning and weaving expenses, as per statement above.....	\$5,584 60
47,694 pounds twines manufactured and used in sewing bags, at \$4 15.....	1,979 30
Total expense of sewing 3,052,433 grain bags.....	\$7,563 90

Or $\frac{2.48}{1000}$ cent per bag.

Baling Expenses.

4½ yards of 12-ounce cloth at 4.5103 equals.....	19.5446 cents.
10 ounces of twine at 4.15 equals.....	2.60 cents.
24 ounces of 8-ply manilla rope at 12. equals.....	18.00 cents.
Total (per bale).....	40.1446 cents.
Cost of baling one grain bag (500 in a bale).....	0.0803 cent.
Cost of baling one yard burlap (700 to 800 yards per bale).....	0.0535 cent.

Shipping Expenses.

Drayage credited to stock department.		
\$35 per month, on say 600 bales of goods (per bale)	5.83	cents.
Freight on steamer to San Francisco (per bale)	25.00	cents.
Total (per bale)	30.83	cents.
Cost of shipping one grain bag	0.062	cent.
Cost of shipping one yard burlap	0.041	cent.

COST PRICE OF GOODS MANUFACTURED DURING THE YEAR ENDING JUNE 30, 1889.

45-Inch Burlap.

12 ounces of jute at 3.524 per pound	2.643	cents.
Waste 10 per cent	0.2643	cent.
Cost of spinning and weaving	1.603	cents.
Cost, loose	4.5103	cents.
Baling	0.0535	cent.
Cost in bale	4.5638	cents.
Shipping	0.041	cent.
Cost delivered in San Francisco (per yard)	4.6048	cents.

22x36 Grain Bag.

39 inches of 45-inch burlap, at 4.5103 cents per yard	4.8862	cents.
Sewing	0.248	cent.
Cost, loose	5.1342	cents.
Baling	0.0803	cent.
Cost in bale	5.2145	cents.
Shipping	0.062	cent.
Cost delivered in San Francisco (per bag)	5.2765	cents.

TOTAL OPERATING COST OF JUTE MILL FOR THE YEAR ENDING JUNE 30, 1889.

Total expenses incurred, including value of supplies on hand July 1, 1888:

Raw jute	\$130,424 44
Raw jute in process of manufacture	1,382 11
Coal	27,336 94
Sizing	3,490 61
Jute oil	1,889 80
Cotton twine	1,859 84
Rope (bale)	1,237 95
Machine oils and engineer's supplies	1,245 71
Tools and repairs	15,063 65
Salaries	12,115 26
Gas	4,446 57
Insurance	728 80
Miscellaneous	1,298 83
Freight on manufactured goods	2,148 00

\$204,668 51

Less value of supplies on hand June 30, 1889:

Raw jute	\$20,081 55
Raw jute in process of manufacture	1,612 13
Coal	639 15
Jute oil	59 40
Sizing	98 47
Cotton twine	129 00
Rope	75 90
Machine oils and engineer's supplies	39 16
Tools and repairs	2,072 94
Miscellaneous	18 50
	<u>24,826 20</u>

Net operating cost for the year \$179,842 31

Divided as follows:

Value of raw jute used.....	\$110,342 89
Less increase in value of raw jute in process of manufacture.....	341 84
Net value of raw jute used in manufacturing.....	\$110,001 05
Spinning and weaving expenses.....	58,004 62
Sewing expenses.....	5,584 60
Rope used in baling.....	1,162 05
Freight on manufactured goods.....	2,148 00
New set of boilers and repairs on old boilers, as per bill of Union Iron Works, July, 1888.....	2,941 99
	<u>\$179,842 31</u>

GOODS SOLD DURING THE YEAR ENDING JUNE 30, 1889.

812,200 22x36 grain bags, at 7 $\frac{1}{2}$ cents.....	\$58,884 50
1,034,750 22x36 grain bags, at 7 $\frac{1}{2}$ cents.....	77,606 25
1,209,058 22x36 grain bags, at 7 $\frac{1}{2}$ cents.....	93,702 00
264,100 22x36 grain bags, at 8 cents.....	21,128 00
3,500 imperfect grain bags, at 5 cents.....	175 00
4,000 4-pound wool bags, at 30 cents.....	1,200 00
1,600 4-pound wool bags, at 32 cents.....	512 00
50 3 $\frac{1}{2}$ -pound wool bags, at 30 cents.....	15 00
1,050 odd and damaged bags.....	27 77
52,011 yards 40-inch burlap, at 5 $\frac{3}{4}$ cents.....	2,756 59
17 yards 45-inch burlap.....	1 00
970 yards 45-inch burlap, at 5 cents.....	48 50
208,162 yards 45-inch burlap, at 6 cents.....	12,489 72
6,360 yards 45-inch burlap, at 6 $\frac{3}{4}$ cents.....	429 31
20 yards 45-inch burlap, at 7 cents.....	1 40
44 yards 45-inch burlap (sewn together), at 7 $\frac{1}{2}$ cents.....	3 30
1 bean cloth, 35x35 feet.....	9 75
1 bean cloth, 40x40 feet.....	11 75
1 bean cloth, 48x50 feet.....	17 50
1 bean cloth, 15x15 feet.....	1 25
1 bean cloth, 15x18 feet.....	1 50
4,098 pounds 3-ply twine, at 8 cents.....	327 84
50,270 pounds 5-ply twine, at 7 cents.....	3,518 90
50 yards ore cloth (damaged old stock), at 5 cents.....	2 50
3,429 pounds jute rope, at 2 $\frac{1}{2}$ cents.....	85 73
33,082 pounds jute rope, at 1 $\frac{1}{2}$ cents.....	372 17
420 pounds loom waste, at $\frac{1}{2}$ of a cent.....	2 10
9,664 pounds loom waste, at $\frac{1}{8}$ of a cent.....	84 57
3,982 pounds loom waste, at 1 $\frac{1}{2}$ cents.....	44 79
11,740 pounds card waste, at $\frac{1}{8}$ of a cent.....	73 38
Issued and charged to departments of the prison:	
100 pounds 5-ply twine, at 6 cents.....	6 00
110 yards 45-inch burlap, at 6 cents.....	6 60
209 yards coffee cloth, at 6 cents.....	12 54
Drayage charged in bills.....	11 25
	<u>\$273,570 46</u>
Less shortage in remittance for 1,500 grain bags in July, 1888.....	\$0 05
Rebate for freight on 120,000 bags received by purchaser on board their own vessels—240 bales, at 25 cents per bale.....	60 00
	<u>60 05</u>
Net amount of sales.....	<u>\$273,510 41</u>

PROFIT AND LOSS ACCOUNT.

Net amount of sales of jute goods during the year ending June 30, 1889.....	\$273,510 41
Value of goods on hand June 30, 1889, at cost price.....	1,966 64
Deduct:	<u>\$275,477 05</u>
Net operating expenses for the year.....	\$179,842 31
Value of goods on hand July 1, 1888.....	14,707 88
	<u>194,550 19</u>
Net profit on goods sold during the year.....	<u>\$80,962 86</u>
Or 41 $\frac{1}{10}$ per cent on cost price.	

RECLAIMING THE WASTE LANDS.

The work of improving the State Prison tract has been continued during the past year, and quite a large area of land has been converted into vegetable gardens. The hillsides in the "valley," from which for years the soil had been stripped for brick making, and which formed such an unsightly feature of the prison grounds, being cut up by small gulches and ravines in all directions, have been leveled during the year as long as the condition of the soil would permit the use of a plow, and in the course of another year may be put into such shape as to make their cultivation practicable.

The construction of a levee, thirty feet wide on top, across the tract of tide land west of the prison has been commenced, and is rapidly approaching completion, and when finished will be the means of reclaiming about twenty-five acres of land now covered by tide water.

WELL WATER.

Irrigation being necessary for the proper cultivation of the new ground made during the year, and we being dependent for our water supply entirely upon the Marin County Water Company, several wells in the "valley" were cleaned out, and windmills and tanks erected over them, and these furnish now a portion of the water required. The sinking of a very large well is also under way near the northwest corner of the prison wall, and this shows indications of furnishing a large supply of water when finished. While sinking this well a body of rock was struck, which is of considerable value, as it presents the appearance of a first class building stone. Four hundred blocks have been cut and dressed with a view to use as quoins in the front building, for which an appropriation was made by the last Legislature.

PURCHASE OF LANDS.

An appropriation was also made to purchase adjacent lands at San Quentin for the use of the State Prison, and improvements on State lands owned by various parties, and the following purchases have been made accordingly:

First—Ninety-five acres of tide lands from assignees of Wm. T. Coleman, for \$2,500; the deed also including whatever interest they may have in about twenty more acres adjoining.

Second—Houses on State lands, formerly owned by Mrs. Jones, Mrs. Saultry, D. Sutherland, and W. O'Grady, the price paid for all of them aggregating \$1,000.

The purchase of land, to straighten boundary line and for right of way to change county road, has not been effected yet, owing to the land in question being in litigation before the United States Supreme Court, and, pending a decision, a perfect title cannot be given by the present holder of the land.

The two acres of tide land and the houses owned by Mrs. Edwards et al., for the purchase of which the sum of \$2,000 was appropriated, are still in possession of the owners, who refuse to sell for this sum, it being \$1,500 less than the price at which they offered to sell. The houses owned by John Mann and Henry Schlosser have not yet become the property of the State, because the owners are not satisfied with the sums appropriated by the Legislature for the purchase of the property.

THE PRISON RECORDS.

I find the books in the Turnkey's Department have been very badly kept, the volumes being in a dilapidated condition, needing immediate care, and I have had a clerical force assigned to the task of rewriting the books in compact form ; I have also made arrangements to print a reference book, which will do away with the constant use and consequent wear and tear of the bulky volumes. As the work progresses, the necessity for the revision and preservation of the records is made more strikingly apparent.

Accompanying will be found reports from the Turnkey, the Physician, the Chaplains, and the Clerks, which give detailed information as to the condition of the several departments.

Respectfully submitted.

JOHN McCOMB, Warden.

CLERK'S REPORT.

CLERK'S OFFICE, CALIFORNIA STATE PRISON, }
SAN QUENTIN, CAL., August 28, 1889. }

Hon. JOHN McCOMB, Warden State Prison, San Quentin, California:

DEAR SIR: I have the honor to submit the following report of the financial transactions of this prison during the fortieth fiscal year, ending June 30, 1889. Table No. 1 exhibits the cash received from all sources during the year; Table No. 2, the cash disbursements for the same period; Table No. 3, abstract of the expenses for same period; Table No. 4, cost of maintaining prisoners for same period; Table No. 5, earnings for the fortieth fiscal year; Table No. 6, assets and liabilities.

Very respectfully,

J. V. ELLIS, Clerk.

TABLE No. 1.

Cash Receipts of the State Prison at San Quentin, during the Fortieth Fiscal Year, ending June 30, 1889.

DATE.	General Appropria- tion.	State Prison Fund.	Jute Fund.	Jute Mill and Building Fund.	Appropriation for Purchase of Lands.
1888—July	*\$22,764 04	-----	\$1,372 25	\$75 00	-----
August	†24,505 88	\$3,638 32	-----	-----	-----
September	17,247 36	10,875 84	-----	-----	-----
October	-----	26,385 56	29,791 00	-----	-----
November	14,364 09	12,319 41	-----	-----	-----
December	12,924 07	10,606 69	-----	-----	-----
1889—January	23,184 39	339 32	14,920 00	-----	-----
February	24,949 80	-----	262 50	-----	-----
March	24,057 70	-----	7,824 60	-----	-----
April	22,684 35	133 01	8,162 70	-----	-----
May	6,433 75	453 25	112 70	-----	-----
June	33,464 42	8,764 37	-----	-----	\$3,900 00
Totals	\$226,579 85	\$73,515 77	\$62,445 75	\$75 00	\$3,900 00

DATE.	United States.	Brick Department.	Door Department.	Foundry Department.	Jute Department.
1888—July	-----	-----	\$3,041 36	\$0 40	\$39,269 10
August	\$752 10	-----	2,901 26	-----	12,750 75
September	-----	-----	3,659 11	-----	17,203 62
October	739 20	-----	3,778 73	40	12,008 00
November	-----	\$17 00	4,708 98	-----	-----
December	-----	10 20	3,932 00	4 63	156 75
1889—January	-----	-----	3,323 15	5 93	1,047 73
February	-----	-----	3,219 80	9 17	246 41
March	806 20	-----	2,500 00	-----	53,472 18
April	-----	15 30	1,176 10	-----	82,590 18
May	-----	-----	-----	-----	21,928 33
June	1,026 40	-----	-----	-----	41,367 61
Totals	\$3,323 90	\$42 50	\$32,240 49	\$20 53	\$282,045 66

DATE.	Furniture Department.	Commissary Department.	Turnkey's Department.	Hospital Department.	Stock Department.
1888—July	-----	\$177 87	\$160 94	\$22 85	\$100 50
August	-----	196 75	132 05	21 70	96 00
September	\$21 00	189 48	154 35	26 70	107 50
October	-----	200 36	120 32	33 25	100 50
November	-----	184 24	144 49	24 00	104 50
December	1 75	210 83	90 02	15 50	109 50
1889—January	3 75	210 24	214 73	18 05	309 00
February	-----	181 15	196 99	21 36	105 50
March	-----	201 59	198 62	25 50	22 50
April	-----	156 67	160 00	14 25	127 50
May	3 75	150 58	152 14	26 80	21 50
June	-----	148 53	213 25	27 60	19 50
Totals	\$30 25	\$2,208 29	\$1,937 90	\$277 50	\$1,224 00

* July, 1888—The amount received from State Treasury out of general appropriation was due from the thirty-ninth fiscal year, \$22,764 04.

† August, 1888—The amount received from State Treasury out of general appropriation, balance due from the thirty-ninth fiscal year, \$2,815 81.

TABLE No. 1—Continued.

DATE.	Labor Account.	Board and Rent.	Gas and Water.	Miscellaneous.	Total.
Bal. on hand, June 30, 1888..					\$34,101 42
1888—July	\$76 75	\$171 10	\$14 10	\$34 85	67,281 11
August	66 50	163 38	19 85	*173 51	45,418 05
September	89 50	167 27	18 15		49,764 88
October	71 25	170 94	20 70		73,420 21
November	99 00	160 79	17 60		32,144 10
December	53 00	161 78	34 00	12 76	28,323 48
1889—January	94 90	157 38	26 85	8 27	43,863 69
February	61 50	156 12	15 00		29,425 24
March		181 88	20 55		89,311 32
April	38 00	71 46	16 60	5	115,346 47
May		81 03	16 80		29,380 63
June		61 71	16 10	5 63	89,015 12
Totals	\$650 40	\$1,704 84	\$236 30	\$235 37	\$726,795 72

* Miscellaneous account—month, August, 1888—This amount consists of one half cost of advertising for supplies received from Folsom State Prison.

TABLE No. 2.

Cash Disbursements of the State Prison at San Quentin, during the Fortieth Fiscal Year, ending June 30, 1889.

DATE.	State Treasury State Prison Fund.	State Treasury Jute Revolving Fund.	Merchandise.	Materials.
1888—July	\$2,401 72	\$30,540 74	\$11,220 23	*\$1,130 77
• August	31,420 12	10,831 51	14,165 37	†3,161 51
September	16,773 98		15,953 41	‡1,232 81
October	21,000 00		15,309 00	386 83
November	4,699 15	12,008 00	14,771 91	707 31
December	4,876 56		13,772 13	127 26
1889—January	3,379 91	156 75	13,225 85	295 76
February	3,864 40	1,047 73	14,821 60	405 13
March	3,466 53	13,441 41	13,415 38	350 74
April	46,429 03	34,306 91	13,898 63	232 21
May	46,780 01			173 72
June	21,768 23	112 70	29,599 54	677 12
Totals	\$206,859 64	\$102,445 75	\$170,153 05	\$8,881 17

* July, 1888, material account includes bill of Union Iron Works for labor and material repairing jute mill boilers, \$2,941 99.

† August, 1888, material account includes bill for furniture and carpets for annex of Warden's house, \$1,065 97.

‡ September, 1888, material account includes bill of Wm. Crabb & Co., Newark, N. J., for "flyers" for jute department, \$774 58.

REPORT OF STATE BOARD OF PRISON DIRECTORS.

TABLE No. 2—Continued.

DATE.	Raw Jute, Freight, and In- surance Paid Out Jute Revolv- ing Fund.	Salaries.	Wages of Department Employés.	Allowance to Officers in Lieu of Board.
1888—July	\$1,372 25	\$5,883 44	\$2,284 00	\$368 90
August	5,630 64	2,299 00	368 90	
September	5,709 47	2,283 50	347 20	
October	29,791 00	5,830 65	2,261 00	347 20
November		5,389 14	2,171 50	325 50
December		5,063 49	2,192 50	347 20
1889—January	14,920 00	5,127 42	2,580 70	384 09
February	262 50	5,353 38	2,046 50	378 00
March	7,824 60	5,478 33	2,121 85	417 90
April	8,162 70	5,025 22	970 00	291 20
May	112 70	5,197 06	970 00	303 80
June		5,011 78	970 00	333 90
Totals	\$62,445 75	\$64,700 02	\$23,150 55	\$4,213 79

DATE.	Allowance Paid to Discharged Prisoners.	Paid for Trans- portation of Prisoners.	Paid on Account Escaped Pris- oners.	Paid on Account General Repairs.
1888—July	\$165 00	\$127 90		\$195 98
August	170 00	149 65	\$10 50	10 24
September	205 00	148 75		85 65
October	115 00	76 45		36 50
November	195 00	146 35		83 99
December	200 00	129 00	50 00	27 91
1889—January	150 00	99 25	20 00	10 17
February	190 00	143 00	165 00	
March	160 00	96 10	8 75	
April	155 00	105 30		46 45
May	135 00	170 10		
June	160 00	185 05		
Totals	\$2,000 00	\$1,576 90	\$254 25	\$496 89

DATE.	General Expense, Post- age,Telegraph, Express, etc.	Gas.	Electric Lights.	Water.	United States.
1888—July	\$265 60	\$562 38	\$165 00	\$917 57	
August	194 26	489 88	165 00	1,136 80	\$20 20
September	147 49	644 45	165 00	1,017 57	
October	203 03		175 00	915 45	
November	209 94	1,574 55	165 00	772 80	5 20
December	148 76	859 05	165 00	707 07	
1889—January	255 98	924 59	165 00	632 80	27 70
February	123 28	809 46	165 00	672 62	
March	118 18	637 20	165 00	642 37	5 20
April	164 03	718 40	165 00	613 35	
May	58 00				
June	198 99	1,179 57	340 00	1,160 77	
Totals	\$2,087 54	\$8,399 53	\$2,000 00	\$9,189 17	\$58 30

TABLE No. 2—Continued.

DATE.	Insurance.	Advertising.	Freight.	Purchase of Live Stock.
1888—July		\$97 02	\$463 80	
August	\$36 90		584 92	
September	1,054 75		280 45	
October	87 00		498 96	\$794 81
November	77 50		616 63	200 00
December			458 33	
1889—January	37 50		187 27	
February			380 75	
March	125 00		408 00	853 13
April			741 85	
May	453 25			
June	186 15		1,696 63	400 00
Totals	\$2,058 05	\$97 02	\$6,317 59	\$2,247 94
DATE.	Purchase of Out- side Lands, etc.	Expense State Prison Directors.	Miscellaneous.	Total.
1888—July			\$3 00	\$58,165 30
August		\$163 65		71,009 05
September				46,049 48
October		121 15		77,949 03
November				44,119 47
December				29,124 26
1889—January		66 00	230 00	42,876 74
February				30,828 35
March		71 00		49,806 67
April			96 00	112,121 28
May	\$200 00		100 00	54,653 64
June			249 00	64,229 43
Totals	\$200 00	\$421 80	\$678 00	\$680,932 70
Balance on hand June 30, 1889				45,863 02
				\$726,795 72

TABLE No. 3.

Abstract of Expenses for the Fortieth Fiscal Year.

Advertising		\$214 00
Insurance		1,141 75
Guards' Department		2,304 84
Hospital Department		2,173 48
Library Department		18 69
Stock Department		7,311 68
Turnkey's Department		23,257 90
Guards' mess	\$9,634 19	
Officers' mess	5,243 29	
Prison mess	61,703 53	
Turnkey's mess	4,966 53	
Warden's house current expense	1,383 94	
Allowance to officers in lieu of board	4,135 39	
		87,066 87
Salaries		64,700 02
State Prison Directors' expense		421 80
General expense		3,493 22
General repairs		5,621 76
Clerks' offices		267 66
Warden's house, furniture and fixtures		47 02
Gas		3,810 82
Electric lights		2,000 00
Water		9,198 95
Escaped prisoners		264 25
Discharged prisoners		2,000 00
Transportation of prisoners		1,576 55
Transportation of insane prisoners		37 00
Total expense for the year		\$216,928 26

TABLE No. 4.

Cost of Maintaining Prisoners per Head.

Average number for the year, 1,337 $\frac{1}{2}$; total cost		\$216,928 26
Average cost per head per month		13 51
Average cost per head per day		44.4
Total expense for the year (Table 3)		\$216,928 26
Net earnings of manufacturing departments	\$98,674 10	
Support of United States prisoners	3,617 00	
Rent of State houses	551 45	
Profit on sale of beef in Commissary Department	256 04	
		103,098 59
Net expense of the prison		\$113,829 67
Average cost per head per month		7 03
Average cost per head per day		23.3

TABLE No. 5.

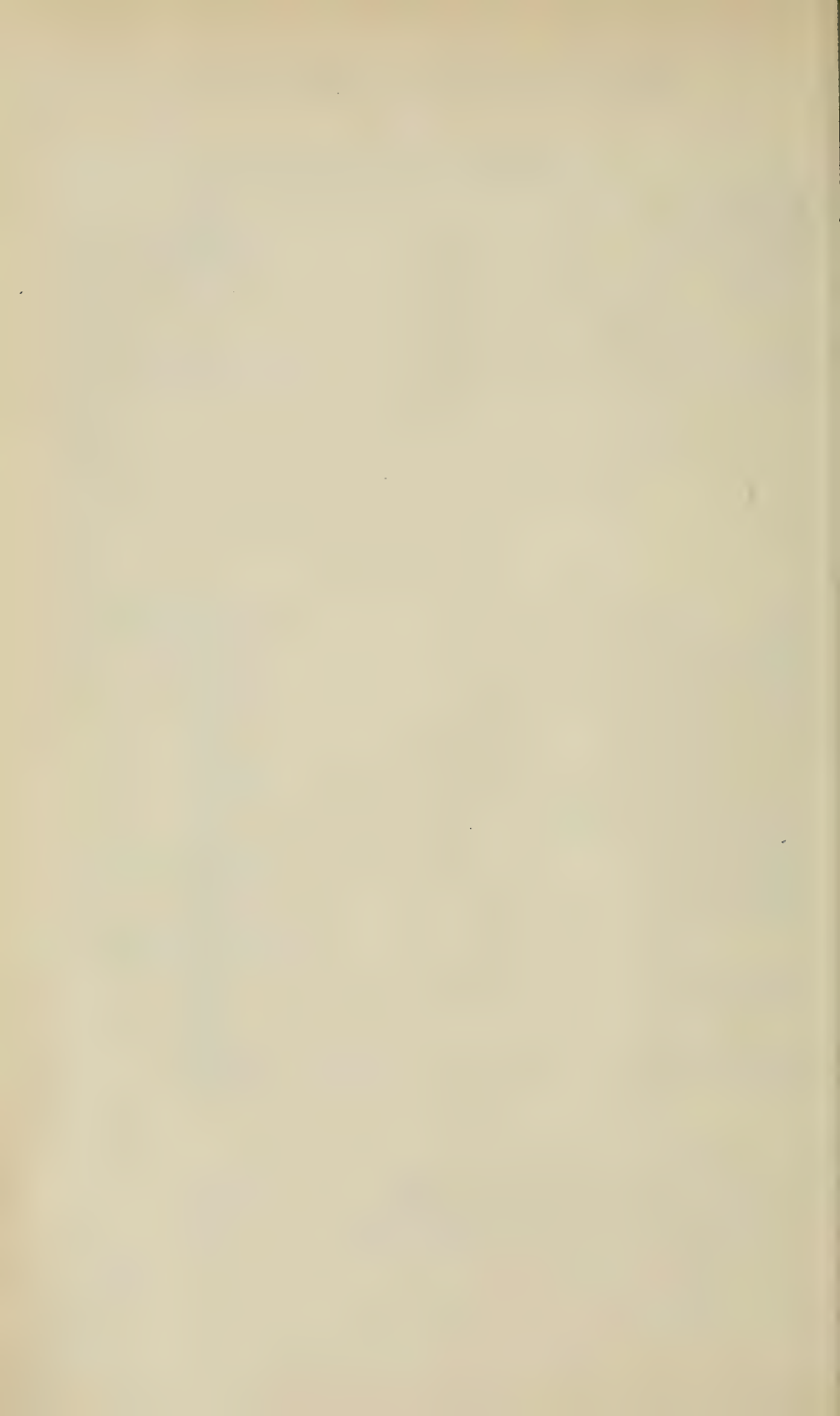
Earnings, Fortieth Fiscal Year.

Brick Department	\$22 56	
Door Department	0,096 98	
Jute Department	80,926 86	
Foundry Department	1,020 08	
Total		\$102,066 42
Deduct expenses of Engineer's Department		3,392 32
Net earnings of manufacturing departments		\$98,674 10
Support of United States prisoners	\$3,617 00	
Rent of State houses	551 45	
Commissary Department, profit on beef sales	256 04	
		4,424 49
Total earnings for the year		\$103,098 59

TABLE No. 6.

Assets and Liabilities.

<i>Assets.</i>		
Buildings, gas and water mains	\$464,884 78	
Real estate and improvements	41,278 50	
Reservoirs	31,278 55	
Brick Department	7,162 90	
Engineer's Department, machinery	35,250 00	
Engineer's Department, stock and tools	1,018 43	
Furniture Department	14,502 07	
Foundry Department	8,213 47	
Jute Department, machinery and equipment	249,385 69	
Jute Department, stock, fabrics, etc.	26,792 84	
Guards' Department	11,453 71	
Commissary Department, property	471 93	
Commissary Department, stock	3,512 21	
Turnkey's Department	31,817 58	
Hospital Department	1,183 11	
Library Department	947 10	
Stock Department	10,557 48	
Clerks' offices	1,204 63	
Warden's house, furniture and fixtures	6,356 62	
		\$947,271 60
Guards' mess	\$516 34	
Officers' mess	343 41	
Prison mess	1,694 16	
Turnkey's mess	428 59	
		2,982 50
Due from the United States	\$1,133 50	
Due from sundry debtors	3,800 89	
Cash in State Prison Fund	168,923 66	
Cash balance on hand	45,863 02	
		219,721 07
Total assets June 30, 1889		\$1,169,975 17
<i>Liabilities.</i>		
Unpaid bills for merchandise, etc., month of June	\$20,811 18	
Unpaid salaries of officers and guards, month of June	5,170 00	
Unpaid wages of department employes, month of June	970 00	
		26,951 18
Total liabilities June 30, 1889		
Excess of assets		\$1,143,023 99



TURNKEY'S REPORT.

SAN QUENTIN, August 1, 1889.

Gen. JOHN McCOMB, Warden of California State Prison, San Quentin:

SIR: I herewith submit my tabulated reports of the Turnkey's Department for the fiscal year ending June 30, 1889.

Very respectfully,

B. DOUGHERTY, Turnkey.

TABLE No. 1.

Recapitulation of Received and Discharged Prisoners, from July 1, 1888, to June 30, 1889.

MONTH.	By Commitment	By Commitment, U. S. Prisoners	Returned Convict Witnesses	Escapes Recaptured	Prisoners Remanded by Order of Court	Parole Revoked	Returned from Insane Asylum	Total Received	Discharged per Act and Re-stored	Discharged per Act	U. S. Prisoners Discharged	Taken out for a New Trial	Taken out on Writ of Habeas Corpus
1888—July	21				1			22	6	27			2
August	23		1		5			29	10	24	1		5
September	34			1				35	5	37			
October	29		1		2			32	5	19			2
November	29	4						33	8	30	1		
December	45							45	9	24		1	1
1889—January	43		2	1	1	1		48	17	11			1
February	51	1	1	1	1			55	17	19			1
March	47				1		1	49	10	17	1		1
April	49				3		1	53	9	22			3
May	42		1					43	14	11		1	
June	35				1			36	8	22			1
Totals	448	5	6	3	15	1	2	480	118	263	3	2	17

MONTH.	Taken out as a Witness	Conditionally Pardoned	Pardoned by the Governor	Pardoned by the President	Discharged by Order of Supreme Court	Discharged by Order of Superior Court	Transferred to Folsom	Escaped	Suicided	Died	Taken to Insane Asylum	Total Discharged	Number of Prisoners on Hand at Close of Each Month
1888—July	1		1			1	10	1		2		51	1,348
August							1			2		43	1,334
September	1						1					44	1,325
October								1		3	1	31	1,326
November			1						1	6		47	1,312
December	1	1	6			1				4		47	1,310
1889—January	2		1	1				3		4		40	1,318
February		1	2			1			1	2		43	1,330
March			1		2					2		35	1,344
April										1		36	1,361
May	1		2							2		31	1,373
June			2							3		36	1,373
Totals	6	2	16	1	2	3	11	6	2	31	1	484	

TABLE No. 1—Continued.

Recapitulation of Received and Discharged Prisoners, from July 1, 1888, to June 30, 1889.

Number of prisoners on hand June 30, 1888.....		1,377
Number of prisoners received by commitment.....	448	
Number of United States prisoners received.....	5	
Returned convict witnesses.....	6	
Escapes recaptured.....	3	
Pardon revoked.....	1	
Prisoners remanded by order of Court.....	15	
Prisoners returned from Insane Asylum.....	2	
		480
Total.....		1,857
Discharged per Act and restored.....	118	
Discharged per Act.....	263	
United States prisoners discharged.....	3	
Taken out for new trial.....	2	
Taken out on writ of habeas corpus.....	17	
Taken out as witnesses.....	6	
Conditionally pardoned.....	2	
Pardoned by the Governor.....	16	
Pardoned by the President.....	1	
Discharged on order of Supreme Court.....	2	
Discharged on order of Superior Court.....	3	
Transferred to Folsom.....	11	
Escaped.....	6	
Suicided.....	2	
Died.....	31	
Sent to Insane Asylum.....	1	
		484
Number of prisoners on hand June 30, 1889.....		1,373
Decrease for the fiscal year.....		4

TABLE No. 2.

Prisoners Received, and on what Day of the Month, from July 1, 1888, to June 30, 1889.

DAY OF MONTH.	1888.						1889.						Total
	July	August	September	October	November	December	January	February	March	April	May	June	
First	1	1	2	2	2	3	2	3	1	1		1	17
Second						2	2	2	3	1		2	12
Third			2	2	1	2	3	2	2			3	17
Fourth	1		3			2	3	3		2	3	1	15
Fifth	1	1		2	1	1	1	2		4	1	2	16
Sixth		1	1			2				1	2	1	8
Seventh		2	1	1		1	5	3	6	3	3	1	23
Eighth		2		1	2		1	6	2	1	1	1	16
Ninth	1			1		1	2	3	1				9
Tenth		3	1	1			2	1	4	3		1	16
Eleventh		2		1		1	2	3	1	4	2	2	18
Twelfth			1	2	5		2	1	1	3			15
Thirteenth		1	4	1	2	2	1	3	1	3	2	1	21
Fourteenth	3	1			4	2	4	2	1	1	2		20
Fifteenth		1		2		1	2	4	1	1	3		15
Sixteenth		1				2	1		1	1	3		9
Seventeenth	2		4				1		1	1	2	2	13
Eighteenth	2		1	1	3	6	1	6		1	1	3	25
Nineteenth				2	2	1	1	5	1	1	1		14
Twentieth	1		1	2	2	2	1	3	2	3	2	2	21
Twenty-first	1	6	1	1		2	1		2	1	3	1	19
Twenty-second	2		1	2		3	1		1		1		14
Twenty-third	1	1	1		1	1	3	2		4	1	3	18
Twenty-fourth			5		4	2	2	1	3	1			18
Twenty-fifth					1	1		1	1	3		3	10
Twenty-sixth	1	2		1	3	4	4		1		1	1	18
Twenty-seventh				4			1	2	1	1	5	1	15
Twenty-eighth	3	1					3	1	3			1	12
Twenty-ninth	1	1	3			1	4			1	1		12
Thirtieth		1	3	3			2			2		3	14
Thirty-first	1	1					3		5				10
Totals	22	29	35	32	33	45	48	55	49	53	43	36	480

TABLE No. 3.

Prisoners Discharged, and on what Days of the Month, from July 1, 1888, to June 30, 1889.

DAY OF MONTH.	1888.						1889.						Total
	July	August	September	October	November	December	January	February	March	April	May	June	
First	1	1		1			2	1	3	1		1	11
Second	2	1	2	3	2	4	2	1		1			18
Third		1	1			3	2			2			11
Fourth	5	2	4	3	1	2	2	1	1			2	23
Fifth	1		3	2				1	2	1	1	1	12
Sixth	2	2	4	2		1	2	2	3		2	1	21
Seventh	2	1	1		1			1	2			1	9
Eighth			1	2	1	1	1	1	3	2		1	13
Ninth	1		4	1	2			3	1		5		17
Tenth	1	3	1	1	1	1		2		3	1	1	15
Eleventh		2	1		1	4			2			2	12
Twelfth					1	4		1	1	3		1	11
Thirteenth	1	3		2	2	2		1				2	13
Fourteenth		2	1	1	3	1	1	4		1	1	1	16
Fifteenth	3	3		1	2	2		1	1	2	1	1	17
Sixteenth	5	1	1	1	2		4	2	2	1	2	4	25
Seventeenth					1	2	2	1	1	2	2	1	12
Eighteenth	2	1		1	4	1	2	2		3	2		18
Nineteenth		1	3	1	2		2	2			2	2	15
Twentieth	1	1		1	1	1					1	1	7
Twenty-first	1	1	1		1	1	2	1	2		1	5	16
Twenty-second	2	5	3		2	2	1		1	2	2		20
Twenty-third		2	1	1	1	1		1	2	2	1	1	13
Twenty-fourth	4		5	1	2	1	1	1	1	2			18
Twenty-fifth	2		1		1	6	1		3				14
Twenty-sixth			2		4	1	3	3	1	2	1	2	19
Twenty-seventh		4	1	2	2	2	1	3			1	1	17
Twenty-eighth		2	1		1	1		7		1	2	2	17
Twenty-ninth	2					2	3			1	1	2	11
Thirtieth	11	3	2	3	4	1	3		2	4	1		34
Thirty-first	2	1		1			3		1		1		9
Totals	51	43	44	31	47	47	40	43	35	36	31	36	484

TABLE No. 4.

Nativity of Prisoners.

UNITED STATES.	Number.	FOREIGN.	Number.
Alaska Territory	3	American waters	2
Arkansas	4	At sea	1
Arizona Territory	2	Austria	9
Alabama	2	Australia	10
California	300	Belgium	3
Connecticut	5	British Columbia	1
Colorado	4	Canada	30
District of Columbia	1	China	143
Florida	1	Chili	3
Georgia	4	Cuba	1
Illinois	43	Denmark	2
Indiana	10	England	53
Iowa	18	East Indies	1
Kentucky	16	France	16
Kansas	3	Finland	2
Louisiana	9	Germany	66
Massachusetts	58	Ireland	70
Missouri	24	Italy	19
Maryland	15	Isle of Man	2
Maine	10	Japan	2
Michigan	10	Lower California	2
Montana	1	Mexico	39
Minnesota	3	Nova Scotia	1
Mississippi	3	New Brunswick	5
New York	131	Portugal	2
New Hampshire	2	Poland	2
New Jersey	5	Russia	3
Nevada	3	Sweden and Norway	10
Nebraska	1	Switzerland	12
North Carolina	2	Scotland	16
Ohio	33	Sicily	1
Oregon	10	Sandwich Islands	1
Pennsylvania	45	South Wales	1
Rhode Island	6	West Indies	1
South Carolina	3	Wales	2
Tennessee	11		
Texas	3	Total	534
Utah	1		
Vermont	3	RECAPITULATION.	
Virginia	17	United States	839
West Virginia	1	Foreign	534
Wisconsin	13		
Total	839	Total	1,373

TABLE No. 5.
Classification of Crime.

CRIME.	Number.	CRIME.	Number.
Arson	1	Burglary, second degree, and prior.	2
Arson, first degree	2	Burglary, second deg.; two priors.	1
Arson, second degree	8	Burglary, second deg.; three priors.	1
Arson, second degree, and grand larceny	1	Burglary, second degree, and arson, second degree	2
Abduction for purposes of prostitution	2	Crime against nature	6
Administering poison with intent to kill	1	Embezzlement	9
Assault to murder	38	Forgery	46
Assault to murder and prior	2	Felony	47
Assault to murder, assault to rob	1	Felony and prior	2
Assault to murder and robbery	2	Felony, to wit: robbery	1
Assault to murder (two commitments)	3	Felony (three commitments)	1
Assault intent to commit murder	8	Felony, and burglary, first degree	1
Assault with means and force likely to produce great bodily injury	5	Grand larceny	204
Assault to rape	16	Grand larceny (two commitments)	2
Assault to rape and prior	1	Grand larceny, second offense	1
Assault with intent to commit rape	3	Grand larceny, burglary, second degree, and escape	1
Assault to rob	20	Grand larceny and prior	8
Assault to rob and prior	1	Grand larceny (three commitments)	1
Assault with deadly weapon	30	Grand larceny, five priors	1
Assault with deadly weapon (two commitments)	1	Grand larceny, assault to murder	1
Assault with deadly weapon and \$3,000 fine	1	Grand larceny; burglary, first degree, and arson, second degree (four commitments)	1
Assault with deadly weapon and \$500 fine	2	Incest	2
Assault with deadly weapon, and burglary, first degree	1	Illegal voting	2
Assault with deadly weapon and assault to rob	2	Injuring public jail	2
Assault with deadly weapon with intent to murder	1	Larceny	2
Assault with deadly weapon with intent to kill	1	Larceny (two commitments)	1
Assisting prisoners to escape	1	Malicious mischief	1
Attempt at grand larceny	3	Mayhem	2
Attempt at burglary	3	Mayhem and resisting an officer	1
Attempt at burglary (two commitments)	1	Mayhem and assault with a deadly weapon	1
Attempt at burglary, first degree	3	Manslaughter	67
Attempt at burglary and prior	3	Murder	13
Attempt at burglary, first and second degrees	1	Murder, first degree	95
Attempt at robbery	4	Murder, second degree	100
Attempt at arson, first degree	1	Mingling poison with food	1
Attempt at arson, second degree	1	Passing counterfeit money	2
Attempt to bribe	2	Perjury	5
Attempt to commit rape	1	Petit larceny and priors	2
Bigamy and \$300 fine	1	Petit larceny and prior felony	1
Buggery	3	Petit larceny, second offense	17
Bridge burning	1	Petit larceny and prior petit larceny	1
Burglary	81	Rape	14
Burglary (two commitments)	3	Robbery	111
Burglary and felony	1	Robbery (two commitments)	
Burglary and prior petit	1	Robbery and escape	2
Burglary, first degree	132	Robbery and assault with deadly weapon	1
Burglary, first degree, and prior	4	Robbery (three commitments)	3
Burglary, first degree, and prior petit	1	Robbery, four priors	1
Burglary, first degree, and escape	1	Robbery and prior petit	4
Burglary, first degree, and assault with a deadly weapon	1	Robbery of United States mail	2
Burglary, second degree	154	Robbery and burglary	1
Burglary, second degree (two commitments)	6	Robbery and injuring jail	1
		Receiving stolen goods	2
		Receiving a bribe	1
		Subornation of perjury	1
		Smuggling	1
		Selling land twice	1
		Selling liquor to Indians	1
		Total	1,373

TABLE No. 6.

Terms of Imprisonment.

TERM.	Number.	TERM.	Number.
One third year	1	Thirteen years	4
One half year	3	Thirteen and ten twelfths years	1
Two thirds year	1	Fourteen years	23
Three fourths year	1	Fifteen years	51
One year	92	Fifteen and one half years	1
One and one twelfth years	1	Sixteen years	4
One and one sixth years	2	Seventeen years	5
One and one fourth years	2	Eighteen years	3
One and one half years	15	Nineteen years	1
One and three quarters years	1	Twenty years	20
One and ten twelfths years	1	Twenty-one years	6
Two years	127	Twenty-two and one half years	1
Two and one third years	1	Twenty-three years	1
Two and one half years	22	Twenty-four years	4
Two and three quarters years	1	Twenty-five years	22
Three years	120	Twenty-seven years	1
Three and one quarter years	1	Twenty-eight years	2
Three and one half years	7	Twenty-nine years	1
Four years	86	Thirty years	6
Four and one half years	1	Thirty-two years	1
Five years	202	Thirty-three years	1
Six years	48	Thirty-four years	1
Six and one sixth years	1	Thirty-five years	6
Six and one half years	3	Thirty-six years	1
Seven years	81	Forty years	7
Eight years	56	Forty-five years	1
Eight and one half years	1	Fifty years	6
Nine years	16	Life-timers	137
Ten years	134		
Eleven years	5	Total	1,373
Twelve years	22		

TABLE No. 7.

Number of Prisoners from each County.

COUNTY.	Number.	COUNTY.	Number.
Alameda	65	San Bernardino	63
Amador	6	San Diego	48
Butte	28	San Joaquin	43
Calaveras	7	San Luis Obispo	15
Contra Costa	15	San Mateo	5
Colusa	11	Santa Barbara	26
Del Norte	2	Santa Clara	56
El Dorado	3	Santa Cruz	1
Fresno	35	Shasta	20
Humboldt	13	Sierra	11
Inyo	3	Siskiyou	12
Kern	26	Solano	14
Lake	9	Sonoma	28
Los Angeles	138	Stanislaus	9
Marin	8	Sutter	2
Mendocino	16	San Francisco and Marin	3
Mariposa	8	Sonoma and Marin	1
Merced	23	Tehama	16
Mono	3	Trinity	2
Monterey	25	Tulare	19
Modoc	3	Tuolumne	14
Nevada	10	Ventura	13
Napa	14	Yolo	4
Placer	15	Yuba	9
Plumas	1	Alaska Territory	5
Sacramento	28	Arizona Territory	2
San Francisco	412		
San Benito	5	Total	1,373

TABLE No. 7—Continued.

Number of Terms.

Prisoners serving their first term	1,082
Prisoners serving their second term	169
Prisoners serving their third term	76
Prisoners serving their fourth term	27
Prisoners serving their fifth term	6
Prisoners serving their sixth term	9
Prisoners serving their seventh term	2
Prisoners serving their eighth term	2
Total	1,373

TABLE No. 8.

Age of Prisoners.

AGE.	Number.	AGE.	Number.
Twelve	1	Forty-four	17
Fourteen	2	Forty-five	26
Fifteen	5	Forty-six	19
Sixteen	7	Forty-seven	18
Seventeen	22	Forty-eight	21
Eighteen	28	Forty-nine	7
Nineteen	48	Fifty	14
Twenty	49	Fifty-one	9
Twenty-one	42	Fifty-two	6
Twenty-two	87	Fifty-three	12
Twenty-three	47	Fifty-four	9
Twenty-four	66	Fifty-five	3
Twenty-five	57	Fifty-six	9
Twenty-six	49	Fifty-seven	3
Twenty-seven	68	Fifty-eight	7
Twenty-eight	70	Fifty-nine	1
Twenty-nine	46	Sixty	4
Thirty	66	Sixty-one	4
Thirty-one	41	Sixty-two	2
Thirty-two	40	Sixty-three	2
Thirty-three	34	Sixty-four	2
Thirty-four	36	Sixty-five	2
Thirty-five	48	Sixty-six	1
Thirty-six	28	Sixty-seven	2
Thirty-seven	43	Sixty-eight	2
Thirty-eight	28	Sixty-nine	1
Thirty-nine	23	Seventy-one	2
Forty	21	Seventy-four	1
Forty-one	23		
Forty-two	27	Total	1,373
Forty-three	15		

TABLE No. 8—Continued.

Educational Abilities of Prisoners.

Read and write	1,080
Read and cannot write	55
Neither read nor write	238
Total	1,373

TABLE No. 9.

Occupation of Prisoners when Received.

OCCUPATION.	Number.	OCCUPATION	Number.
Amalgamator	1	Ironer	7
Baker	10	Interpreter	1
Bookkeeper	12	Indian doctor	1
Barkeeper	10	Journalist	1
Barber	25	Lithographer	1
Blacksmith	25	Laborer	336
Butcher	18	Milliner	5
Brickmason	2	Molder	4
Broommaker	2	Miner	40
Boilermaker	10	Marble cutter	2
Brakesman	4	Machinist	19
Bolt cutter	1	Merchant	3
Butler	1	Mattressmaker	1
Buttonmaker	1	Millwright	2
Boxmaker	2	Messenger boy	2
Blockmaker	1	Nurse	5
Boatman	2	Printer	16
Brewer	3	Plasterer	2
Bootblack	1	Plumber	6
Bookbinder	1	Policeman	2
Calico printer	1	Painter	11
Cook	105	Physician	3
Carver	4	Porter	1
Carpenter	32	Photographer	1
Cigarmaker	29	Polisher	3
Clerk	28	Pianomaker	1
Cabinetmaker	5	Quarryman	4
Cooper	2	Railroad employé	16
Coach driver	2	Rigger	1
Civil engineer	1	Ship carpenter	4
Carriagemaker	1	Saloonkeeper	3
Carriage painter	1	Sashmaker	3
Crackermaker	1	Sailor	45
Chairmaker	1	Solicitor	2
Confectioner	1	Storekeeper	1
Compositor	1	Servant	2
Cotton classifier	1	Schoolmaster	2
Domestic	16	Stock raiser	4
Decorator	1	Saddletreemaker	1
Dairyman	2	Saddletree coverer	1
Druggist	2	Ship caulker	1
Driller	1	Steward	3
Dyer	1	Stonecutter	3
Dentist	2	Stevedore	6
Engraver	2	Salesman	2
Engineer	17	Spinner	1
Electrician	2	Shoemaker	28
Electro plater	1	Stage driver	1
Farmer	50	Special officer	1
Fisherman	10	Soldier	1
Florist	3	Sailmaker	1
Fireman	8	Teamster	47
Furniture polisher	1	Tailor	9
Foundryman	3	Tinsmith	9
Filer and sawyer	5	Tanner	1
Gardener	4	Trader	1
Gasfitter	2	Upholsterer	1
Glass blower	1	Vaquero	34
Glovemaker	2	Washman	72
Harnessmaker	14	Weaver	3
Hostler	25	Wheelwright	1
Housewife	1	Waiter	37
Herder	2	Wood turner	4
Horse trainer	3	Washerwoman	2
Horse shoer	5	Watchmaker	1
Hunter	1		
Hatter	1	Total	1,373
Hackman	2		

TABLE No. 10.

Statistics of Environments as Compiled from the Statements of Prisoners. Details of their Habits, Relation, and Conditions prior to their Arrest and Conviction, and the Causes that led thereto.

	Number.		Number.
<i>Color.</i>		<i>Religious Denominations.</i>	
White	1,166	Catholic (Roman)	580
Black	28	Catholic (Greek)	17
Indian	25	Baptist	59
Mongolian (Chinese)	145	Episcopalian	73
Mongolian (Japanese)	2	Lutheran	66
Indo-Caucasian	2	Methodist	90
Mulatto	7	Presbyterian	65
Total	1,373	Universalist	48
<i>Residence.</i>		Hebrew	18
Residents of State	760	Mormon	4
Non-residents of State (land)	570	Pagan	143
Non-residents of State (sea)	43	Irreligious	210
Total	1,373	Total	1,373
<i>Moral Relations.</i>		<i>Conjugal Relation.</i>	
Intemperate	658	Married	203
Moderate	45	Married and separate	57
Temperate	60	Widowed	45
Opium users	610	Single	1,068
Total	1,373	Total	1,373
<i>Educational.</i>		<i>Social Relations.</i>	
Read, write, and cipher (English) ..	660	Parents living	463
Read and write (English)	100	Parents dead	279
Read only (English)	30	Father living	179
Read and write (English and foreign) ..	121	Mother living	154
Read only (foreign)	199	No knowledge of parents	298
Read and write (foreign only)	25	Total	1,373
Illiterate	238	<i>Age when Parents Died.</i>	
Total	1,373	Under 10 years when father died ..	94
<i>School.</i>		Over 10 years when father died ..	76
Public school	940	Over 18 years when father died ..	137
Private school	103	Under 10 years when mother died ..	88
College	40	Over 10 years when mother died ..	75
Self-educated	79	Over 18 years when mother died ..	168
No school	211	Parents that are not dead	455
Total	1,373	No knowledge of death of parents ..	280
<i>Attending Church.</i>		Total	1,373
Regular	535	<i>Soldiers or Sailors.</i>	
Irregular	467	Served in United States Army	85
Never	371	Served in United States Navy	21
Total	1,373	Served in Confederate Army	9
<i>At Sunday School.</i>		Served in Confederate Navy	2
Regular	535	Served in State Militia	118
Irregular	467	Served in German Army	5
Never	371	Served in German Navy	3
Total	1,373	Served in English Army	7
<i>At Sunday School.</i>		Served in English Navy	4
Regular	535	Served in French Army	2
Irregular	467	Served in French Navy	4
Never	371	Served in Italian Army	6
Total	1,373	Served in Italian Navy	1
		Served in Mexican Army	5
		Served in other foreign armies and navies	18
		Served in no branch of service	1,073
		Total	1,373

TABLE No. 10—Continued.

	Number.		Number.
<i>How Crime was Committed.</i>			
Alone	911	For miscellaneous crimes	\$25,000
With accomplices	462	For transportation	23,000
Total	1,373	Total	\$614,100
<i>Where Living when Crime was Committed.</i>		<i>Causes of Crime.</i>	
Living in city	450	Crime caused by liquor	434
Living in town	101	Crime caused by destitution	160
Living in country	215	Crime caused by bad associates	550
Wandering from place to place	607	Crime caused by sudden impulses	95
Total	1,373	Crime caused by ignorance	75
		Crime caused by wrong inflicted (real or imaginary)	19
		Crime caused by gambling	40
		Total	1,373
<i>Time of Committing Crime.</i>		<i>Cause of Committing Crime.</i>	
By night	560	Professional criminal	250
By day	813	Destitution	70
Total	1,373	Liquor	290
		Opium	540
<i>Place of Committing Crime.</i>		Women	70
Houses of business (mercantile)	119	Uncontrollable impulses	25
Houses of business (monetary)	21	Ignorance	70
Private residences	271	Bestial passions	30
Public residences (hotels, etc.)	195	Resisting	12
Highways (railroad and stage routes)	104	Gambling	16
Highways (common roads, etc.)	52	Total	1,373
Saloons	269	<i>Industrial Relations.</i>	
Miscellaneous places	342	Trades (multiple)	127
Total	1,373	Trades (single)	690
		Knowledge of trade	110
<i>Estimated Amount of Property Stolen.</i>		No trade (laborer)	295
By forgeries	\$54,000	No trade (vagrant)	123
By burglaries	99,000	Professions	28
By robberies	55,000	Total	1,373
By false representations	1,300	<i>Plea.</i>	
By false claims	1,700	Plead guilty	703
By larcenies (grand)	70,000	Plead not guilty	670
By larcenies (petit)	500	Total	1,373
By receiving stolen goods	1,700		
Total	\$283,200	Plead guilty because had neither friends nor money	227
		Plead guilty to save disgrace of friends	15
<i>Estimated Damage Inflicted.</i>		Plead guilty through ignorance of the law	55
By arson	\$24,000	Plead guilty in order to mitigate the penalty	250
By burglarious operations	69,000	Plead guilty because of prior conviction	120
Miscellaneous	23,000	Plead guilty to avoid prosecution for other crimes	30
Total	\$116,000	Plead guilty to murder	6
		Plead not guilty to murder	249
<i>Estimated Cost of Conviction and Transportation.</i>		Plead not guilty to assault to murder	40
For murder	\$274,000	Plead not guilty because had money and friends	381
For burglary	143,174	Total	1,373
For arson	7,826		
For assault to murder	44,000		
For assault with deadly weapon	1,100		
For robbery and assaults to rob	87,000		
For rape and assaults to rape	9,000		

TABLE No. 10—Continued.

	Number.		Number.
<i>Ability to Gain Livelihood.</i>			
Can earn \$200 per month	1	Can earn \$70 per month	99
Can earn \$190 per month	3	Can earn \$60 per month	100
Can earn \$180 per month	4	Can earn \$50 per month	130
Can earn \$170 per month	4	Can earn \$40 per month	120
Can earn \$160 per month	6	Can earn \$30 per month	150
Can earn \$140 per month	12	Can earn \$20 per month	240
Can earn \$120 per month	35	Can earn \$10 per month	103
Can earn \$100 per month	65	Can earn \$5 per month	60
Can earn \$90 per month	67	Can earn \$0 per month	40
Can earn \$80 per month	84	A burden to the State	50
		Total	1,373

TABLE No. 11.

From what Counties Committed, and in what Year.

COUNTIES.	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880
Alameda									1				1	
Amador								1					1	
Butte												1	1	
Calaveras												1		
Colusa														
Contra Costa	1									1				
Del Norte													1	
El Dorado													1	
Fresno														
Humboldt									1					
Inyo														1
Kern														
Lake														1
Los Angeles												1	1	
Marin										1				
Mendocino														
Mariposa														
Merced														
Mono														
Monterey													1	
Modoc														
Nevada												1		1
Napa														
Placer								1	1					1
Plumas												1		
Sacramento						1		1						1
San Francisco						1			2	2		1	2	4
San Benito														
San Bernardino												1		2
San Diego						1								1
San Joaquin													1	
San Luis Obispo														
San Mateo														
Santa Barbara								1					1	
Santa Clara										1				
Santa Cruz														
Shasta									1			1		
Sierra														
Siskiyou														1
Solano														
Sonoma														1
Stanislaus														
Sutter														
San Francisco and Marin														
Sonoma and Marin													1	
Tehama									1				1	
Trinity														
Tulare									1					
Tuolumne														
Ventura														
Yolo											1			
Yuba														
Alaska Territory														
Arizona Territory														
Totals	1					3		2	5	7	4	8	12	14

TABLE No. 11—Continued.

COUNTIES.	1881	1882	1883	1884	1885	1886	1887	1888	1889	Total.
Alameda	1		2	2	2	10	19	7	21	65
Amador			1			1	1		1	6
Butte				2	3	2	3	2	14	28
Calaveras				1	2		2		1	7
Colusa	1			1	2	2	2	2	1	11
Contra Costa			1	1	4			1	6	15
Del Norte			1							2
El Dorado				1		1				3
Fresno	1	2	2	5	4	6	6	7	2	35
Humboldt						3	3	2	4	13
Inyo				1	1					3
Kern	1		1	2		2	1	3	16	26
Lake				1	1	1	2		2	9
Los Angeles	3	2	1	3	6	15	22	21	63	138
Marin			1		2	1	1		2	8
Mendocino	1			1		6		1	7	16
Mariposa					2	1	4		1	8
Merced			2	2	1	4	8	2	4	23
Mono						2		1		3
Monterey	1	1		2	3	4	2	1	10	25
Modoc				1	1					3
Nevada						3	2		3	10
Napa		1	2	2			1	1	7	14
Placer	4	1				1		2	4	15
Plumas										1
Sacramento		2		3	2	6	5	2	3	28
San Francisco	3	9	12	11	43	58	117	44	103	412
San Benito				1		1			3	5
San Bernardino				4	1	7	15	9	24	63
San Diego	1		1	1	1		12	13	17	48
San Joaquin					3	7	10	6	16	43
San Luis Obispo		1				1	3	1	9	15
San Mateo			1				1	1	2	5
Santa Barbara				3	2	4		6	9	26
Santa Clara		1		1	6	7	16	6	18	56
Santa Cruz									1	1
Shasta		2		1	1		1	1	12	20
Sierra			3	2	3		2	1		11
Siskiyou					3	3	1		4	12
Solano			1		1		4		8	14
Sonoma		2	2	3	2	4	2	1	11	28
Stanislaus	1	1	1		1	1		1	3	9
Sutter									2	2
San Francisco and Marin	1	1		1						3
Sonoma and Marin										1
Tehama	2				2		1	3	6	16
Trinity				1	1					2
Tulare	3			1			9		5	19
Tuolumne	1	1	1	1	2	2	4	1	1	14
Ventura	1	1	1			1	1	4	4	13
Yolo							2		1	4
Yuba							1		8	9
Alaska Territory									5	5
Arizona Territory									2	2
Totals	26	28	40	62	108	168	286	153	446	1,373

TABLE No. 12.

Industrial and Criminal Life of Prisoners.

YEARS PASSED IN CRIMINAL PURSUITS.	YEARS PASSED IN INDUSTRIAL PURSUITS.										Total
	1 to 2	2 to 4	4 to 6	6 to 8	8 to 10	10 to 15	15 to 20	20 to 30	30 to 40	40 to 50	
Twenty-five to thirty				1	4	3	1	1			10
Twenty to twenty-five				2	6	4	2	3	2		19
Fifteen to twenty	9	7	4	8	2	10	13	15	2		70
Ten to fifteen	11	8	7	2	11	13	14	2	1		69
Eight to ten	13	7	19	5	17	15	21	11			108
Seven to eight	11	4	9	5	15	2	4	1	2	2	55
Six to seven	15	3	7	4	13	1	2	3	2	1	51
Five to six	7	8	11	3	12	9	10	8	1		69
Four to five	4	3	7	9	7	11	8	7	2		58
Three to four	20	9	7	4	9	16	8	3	5		81
Two to three	16	40	39	25	30	56	43	41	15	4	309
One to two	61	45	61	60	46	75	55	45	17	9	474
Totals	167	134	171	128	172	215	181	140	49	16	1,373

TABLE No. 13.

Terms Served in State Prisons and other Public Institutions.

TERMS SERVED IN OTHER PRISONS THAN SAN QUENTIN.	First Term in San Quentin, by Transfer from Folsom	First Term in San Quentin, by Original Commitment, Served one Term at Folsom.	First Term in San Quentin, by Original Commitment	Second Term in San Quentin, by Original Commitment	Third Term in San Quentin, by Original Commitment	Fourth Term in San Quentin, by Original Commitment
Served two terms in Folsom	8			2	2	
Served one term in Folsom	30	11		4	3	5
Served two terms in other State Penitentiaries		1		1		
Served one term in other State Penitentiaries		1		1	2	1
Served four terms in San Francisco House of Correction	13	2	50	5	1	
Served three terms in San Francisco House of Correction	11	3	40	8	2	
Served two terms in San Francisco House of Correction	10	1	42	19	4	
Served one term in San Francisco House of Correction	13	2	52	24	10	
Served in San Francisco Industrial School	9	17	275	29	11	
Served in one or more County Jails	12	10	146	21	7	
Been incarcerated in Insane Asylum			4	2	2	
Only to San Quentin committed			261	53	27	24
Totals	106	48	870	169	71	30
TERMS SERVED IN OTHER PRISONS THAN SAN QUENTIN.	Fifth Term in San Quentin, by Original Commitment	Sixth Term in San Quentin, by Original Commitment	Seventh Term in San Quentin, by Original Commitment	Eighth Term in San Quentin, by Original Commitment	First Term in San Quentin by Transfer from Folsom, has Served Terms in other Prisons	Total
Served two terms in Folsom					7	19
Served one term in Folsom					25	78
Served two terms in other State Penitentiaries						2
Served one term in other State Penitentiaries						5
Served four terms in San Francisco House of Correction					2	63
Served three terms in San Francisco House of Correction						64
Served two terms in San Francisco House of Correction						86
Served one term in San Francisco House of Correction						101
Served in San Francisco Industrial School					19	360
Served in one or more County Jails					11	207
Been incarcerated in Insane Asylum						8
Only to San Quentin committed	4	7	2	2		380
Totals	4	7	2	2	64	1,373

TABLE No. 14.

Showing the Number of Prisoners in the State Prison at San Quentin, June 30, 1889, under Commitment for Murder, in what Year Committed, and from what Counties.

COUNTIES.	1876	1878.	1879.	1881.	1884.	1885.	1886.	1887.	1888.	1889.	Total.
Butte.....							1				1
Calaveras.....					1	1					2
Colusa.....									1		1
Contra Costa.....										1	1
Fresno.....								1			1
Humboldt.....	1										1
Kern.....			1						1		2
Los Angeles.....		1									1
Modoc.....					1						1
Merced.....										1	1
Tehama.....				1							1
Totals.....	1	1	1	1	2	1	1	1	2	2	13

TABLE No. 15.

Showing the Number of Prisoners in the State Prison at San Quentin, June 30, 1889, under Commitment for Murder in the First Degree, in what Years Committed, and from what Counties.

COUNTIES.	1873.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	Total.
Alameda.....			1								1	1					3
Amador.....		1															1
Butte.....					1	1											2
Colusa.....												2					2
Contra Costa.....				1												1	2
Del Norte.....						1											1
Fresno.....								3		1							4
Inyo.....							1										1
Kern.....										1					1		2
Lake.....							1										1
Los Angeles.....														1			1
Marin.....										2							2
Mendocino.....								1						1			2
Mariposa.....														1			1
Nevada.....					1		1							1		1	4
Napa.....											1						1
Placer.....		1					1					1	1				4
Sacramento.....									2	1		1	1				5
San Francisco.....		1	1		1		2	1	2		1	1	2	3	3		18
San Bernardino.....							2						1	1			4
Santa Barbara.....						1							1				2
San Diego.....	1						1				1					1	4
San Joaquin.....											1						1
Santa Clara.....									1	1		1	2				5
San Mateo.....									1								1
Solano.....	1												1			1	3
Siskiyou.....											1						1
Sierra.....											1	2					3
Shasta.....					1				1								2
Sonoma.....							1									1	2
Tulare.....			1					1									2
Tehama.....			1			2											3
Tuolumne.....									2							1	3
Ventura.....								1		1							2
Totals.....	2	3	4	1	4	5	10	7	9	7	7	9	9	8	4	6	95

TABLE No. 16.

Showing the Number of Prisoners in the State Prison at San Quentin, June 30, 1889, under Commitment for Murder in the Second Degree, in what Years Committed, and from what Counties.

COUNTIES.	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	Total
Alameda		1			1								1		1				4
Amador						1													1
Butte			1							1									2
Colusa																	1		1
Contra Costa	1											1							2
El Dorado											1								1
Fresno											1			1			2	1	5
Humboldt														1			1		2
Inyo											1	1							2
Kern										1	1			1	1				4
Lake											1					2			3
Los Angeles				1					1				2						4
Marin		1																	1
Mendocino																		1	1
Monterey				2					1				1						4
Mariposa														2					2
Nevada														1			1		2
Napa										1									1
Plumas			1																1
Sacramento	1																		2
San Francisco	1										1	1	2	1	5	4	2	3	21
San Bernardino			1												1			1	3
Santa Barbara													1						1
San Diego	1									1				1			1	1	5
San Joaquin																	1		1
Santa Clara																2		2	4
Solano											1					1			2
Sonoma											1			2	1			2	6
Stanislaus										1		1							2
San Luis Obispo											1			1					2
Siskiyou									1										1
Tulare										1		1				1			3
Tehama		1																1	2
Tuolumne												1							1
Yolo																1			1
Totals	3	3	3	3	2	7	4	11	9	11	9	11	9	11	9	11	9	12	100

NOTE.—Contra Costa, in 1867, 1; San Francisco, in 1874, 1; in 1875, 1; Sacramento, in 1874, 1; Alameda, in 1876, 1; Tehama, in 1876, 1.

TABLE No. 17.

Showing the Number of Prisoners in the State Prison at San Quentin, June 30, 1889, under Commitment for Manslaughter, in what Year Committed, and from what Counties.

COUNTIES.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	Total.
Arizona							1	1
Alameda			1	1	1			3
Butte					1			1
Colusa	1	1				1		3
Fresno			1				1	2
Kern					1		1	2
Los Angeles			2		1		7	10
Mendocino					1			1
Monterey					1			1
Merced			2		1			3
Mono						1		1
Napa						1		1
San Francisco	3		2	1	6		2	14
San Bernardino				1	2		1	4
San Joaquin					2			2
San Luis Obispo				1			2	3
San Diego							1	1
Stanislaus			1		1	1		3
Sonoma				1		1	3	5
Solano			1					1
Sierra						1		1
Trinity			1					1
Tulare					2			2
Tehama					1			1
Totals	4	1	11	5	21	6	19	67

TABLE No. 18.

Showing Number of Prisoners in the State Prison at San Quentin, June 30, 1889, under Commitment for Felonious Assault, in what Years Committed, and from what Counties.

COUNTIES.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	Total.
Alameda		1					1	1	1	1	5
Amador								1			1
Butte										1	1
Colusa								1			1
Contra Costa				1		2					3
Fresno					1						1
Humboldt							2	2	1		5
Kern								1			1
Los Angeles							4	3	3	2	12
Marin			1							1	2
Mendocino							2			1	3
Monterey							1	1		1	3
Mariposa								3			3
Mono			1								1
Merced				1				1			2
Nevada						1					1
Napa							1			1	2
Placer			1						1	1	3
San Francisco		1		5		2	4	9	7	13	41
San Bernardino				1	1	1	1	3		5	12
Santa Barbara			1		1					1	3
San Diego									1		1
San Joaquin							2			1	3
San Benito										1	1
Santa Clara	1		1			1		2		2	7
Solano				1							1
Sonoma		1	1								2
Stanislaus								1	1	2	4
San Mateo				1							1
Siskiyou						1			1		2
Sierra					2			1			3
Shasta								2		2	4
Tulare							2	4	1		7
Trinity						1					1
Ventura					1					1	2
Yuba					1					1	2
Totals	1	3	6	10	7	9	20	36	17	38	147

TABLE No. 19.
Offenses Against Life.

YEARS COMMITTED.	Murder—First Degree	Murder	Murder—Second Degree	Manslaughter	Felony Assaults	Total
Committed in year 1867			1			1
Committed in year 1872			3			3
Committed in year 1873	2					2
Committed in year 1874			1			1
Committed in year 1875	3		1			4
Committed in year 1876	4	1	2			7
Committed in year 1877	1		1			2
Committed in year 1878	4	1	3			8
Committed in year 1879	5	1	3			9
Committed in year 1880	10		2		1	13
Committed in year 1881	7	1	7		3	18
Committed in year 1882	9		4		6	19
Committed in year 1883	7		11	4	10	32
Committed in year 1884	7	2	9	1	7	26
Committed in year 1885	9	1	11	11	9	41
Committed in year 1886	9	1	9	5	20	44
Committed in year 1887	8	1	11	21	36	77
Committed in year 1888	4	2	9	6	17	38
Committed in year 1889	6	2	12	19	38	77
Totals	95	13	100	67	147	422

TABLE No. 20.

Prison Account from 1851 to July 1, 1889.

YEARS.	Prisoners Received by Order of Court	Pardons Revoked	Escapes Recaptured	Returned from Insane Asylum	Returned Convict Witnesses	United States Prisoners Received	Returned with an Additional Sentence on New Charge	Remanded by Order of Court	Total Received	Discharged per Act and Restored	Discharged per Act
1851	35								35		
1852	105		3						108		12
1853	163		2						165		38
1854	211		16						227		87
1855	266		25						291	1	94
1856	258		29						287	4	103
1857	245		32						277		114
1858	226		33						259	32	94
1859	220		50						270	16	119
1860	295		20						315	1	145
1861	238		9						247		130
1862	190		74						264	4	153
1863	163		4						167		134
1864	232		2						234	43	121
1865	235		1						236	7	137
1866	254	1	2	1					258	25	129
1867	287								287	41	175
1868	284	1							285	40	197
1869	332		1						333	110	95
1870	375			1					376	155	90
1871	373			5					378	185	59
1872	396			1					397	160	99
1873	206		2						208	82	58
1874	409		2	2					413	185	117
1875	542	1	3						546	214	119
1876	513		4	1					518	244	96
1877	615	1	3	1					620	164	129
1878	715								715	214	163
1879	597	1	6						604	264	124
1880	531		5	1	12	4		2	555	324	172
1881	525		2		21	4	2	3	557	336	168
1882	488		1	1	8	11	1		510	231	171
1883	415				20	4		1	440	232	132
1884	410		3	1	11	5	2	5	437	196	136
1885	424	1	2		5	11	1		447	190	96
1886	433	1		2	13	7		1	460	230	99
1887	403		1	2	6	4			418	236	94
1888	415		1	2	11	9	1	1	597	194	147
1889	448	1	3	2	6	5		15	480	118	263
Totals	13,472	8	341	23	113	64	7	28	14,221	4,487	4,619

TABLE No. 20—Continued.

YEARS.	Pardoned by the Governor	Pardoned by the President	Discharged by Commutation of Sentence	Discharged by Order of Court	Escaped	Died	Sent to Insane Asylum	Taken out as Convict Witnesses	Discharged by Order of United States Officials	Taken out by Order of Court	Total Discharged
1851					1						1
1852	2				6	1					21
1853	9				8	3					58
1854	14				87	6					194
1855	29			4	28	1					157
1856	18			1	65	5					196
1857	28			4	72	14	2				234
1858	27			7	23	5	3				191
1859	38			13	95	17	1				299
1860	25			7	127	7	2				314
1861	34			4	35	8	1				212
1862	11			5	90	15	8				286
1863	24				24	4	7				193
1864	11			3		17	1				196
1865	11			10	1	8	3				177
1866	23			8	4	8	1		6		212
1867	37			11		16	3		6		289
1868	44			7	5	9			1		303
1869	22			7		10	4				248
1870	32	1		14	1	10	13		1		325
1871	37		1	16	2	16					316
1872	61	1	2	15	2	12	9				361
1873	15	1	1	20	2	8	3				190
1874	26	2		27		11	5		3		377
1875	32			35	6	18			1		425
1876	66		10	42	3	15	4		1		481
1877	30	2	35	37	10	16	2		2		427
1878	16	1	62	58	2	27	3				546
1879	17	2	53	20	10	29	8				527
1880	19	2	20	1	7	28	2	14	1	14	604
1881	7	3	15	1	7	23	1	20		18	852
1882	20	2		2	1	14	5	8		11	525
1883	45			1	1	13		22	2	11	459
1884	32	1	1	1	4	14	3	11	1	17	468
1885	52	1		1	3	15	11	5	1	13	390
1886	27	2		2	3	29	3	13		5	425
1887	33	1	7		2	31	19	7	9	5	445
1888	18	1			3	32	7	11	5	17	440
1889	18	1		5	6	33	1	6	3	17	484
Totals	1,010	32	207	389	746	548	135	117	43	130	12,848

NOTE.—Received, 14,221; discharged, 12,848; prisoners on hand June 30, 1889, 1,373. Transferred to Folsom Prison, in 1881, 253; in 1882, 60; in 1884, 50; in 1885, 2; in 1886, 4; in 1887, 1; in 1888, 7; in 1889, 11; total, 388. Received by transfer from Folsom Prison, in 1885, 3; in 1886, 3; in 1887, 2; in 1888, 157; total, 165.

TABLE No. 22.

Report of Articles Manufactured, Received, and Issued during the Fortieth Fiscal Year, Commencing July 1, 1888, and Ending June 30, 1889.

	CITIZEN PANTS.				CITIZEN SHOES.			
	Manufactured	Issued	Received Second Hand	Issued Second Hand	Manufactured	Issued	Received Second Hand	Issued Second Hand
1888 AND 1889.								
July	19	15	10	9	50	42	3	3
August	20	27	15	13	48	53	6	6
September	23	31	19	12	51	53	1	2
October	16	14	6	5	63	39	5	4
November	29	31	7	9	41	62	3	3
December	22	22	14	13	41	40	4	3
January	23	23	22	9	30	24	7	5
February	32	29	15	17	24	31	8	9
March	22	25	13	15	28	21	10	10
April	24	24	6	7	14	11	8	8
May	17	17	7	15	19	13	4	5
June	26	26	6	13	14	20	3	3
Totals	273	284	140	137	423	409	61	61
	CITIZEN COATS.				CITIZEN VESTS.			
	Manufactured	Issued	Received Second Hand	Issued Second Hand	Manufactured	Issued	Received Second Hand	Issued Second Hand
1888 AND 1889.								
July	23	27	1	1	20	24	2	2
August	23	23	2	2	25	24	1	1
September	24	32	3	1	26	32		
October	20	14	4	2	17	15	3	3
November	29	34	2	2	27	29	4	3
December	25	26	6	3	25	25	3	2
January	24	23	4	3	23	22	2	
February	31	30	3	3	28	26	1	1
March	22	24	2	1	22	25	2	1
April	29	29	1	2	27	27		
May	18	18			25	25	3	2
June	27	27	3	3	33	33	1	1
Totals	295	307	31	23	298	307	22	16

TABLE No. 22—Continued.

1888 AND 1889.	CONVICT PANTS.				CONVICT SHIRTS.			
	Manufactured	Issued	Received Second Hand	Issued Second Hand	Manufactured	Issued	Received Second Hand	Issued Second Hand
July	155	220	47	18	310	186	81	84
August	168	250	24	26	144	206	47	23
September	218	209	60	11	237	169	42	53
October	251	245	15	47	134	235	43	47
November	139	123	-----	17	139	122	33	16
December	207	168	11	35	135	132	23	15
January	244	289	17	10	307	291	60	67
February	250	219	22	18	177	204	23	11
March	205	225	37	24	271	203	36	19
April	351	341	12	11	361	331	61	65
May	172	172	15	13	107	178	13	14
June	278	209	16	24	363	153	17	28
Totals	2,638	2,670	276	254	2,645	2,410	479	442

1888 AND 1889.	UNDERSHIRTS.				DRAWERS.			
	Manufactured	Issued	Received Second Hand	Issued Second Hand	Manufactured	Issued	Received Second Hand	Issued Second Hand
July	102	64	24	20	13	67	19	19
August	101	63	22	19	110	52	16	16
September	70	99	29	15	106	95	13	25
October	124	114	23	24	114	100	27	14
November	161	181	36	32	144	186	23	23
December	205	200	24	21	204	200	15	17
January	175	147	31	25	193	150	19	23
February	64	96	25	31	55	98	29	31
March	207	136	14	16	208	138	33	35
April	376	354	19	18	384	361	26	24
May	531	281	23	25	483	278	24	27
June	208	330	27	29	325	342	13	15
Totals	2,324	2,065	297	275	2,339	2,067	257	269

TABLE No. 22—Continued.

1888 AND 1889.	HATS.				BLANKETS.			
	Received -----	Issued -----	Received Second Hand -----	Issued Second Hand -----	Received -----	Issued -----	Received Second Hand -----	Issued Second Hand -----
July	144	128	2	2	18	35	64	63
August	144	121	5	5	7	23	55	45
September	144	143	9	9	-----	9	104	90
October	152	180	12	11	-----	3	86	90
November	144	116	12	10	-----	105	67	63
December	144	127	13	9	201	293	84	80
January	144	202	7	14	146	146	49	50
February	144	141	2	1	100	79	97	91
March	73 } 144 }	196	1	2	{ 58 } { 50 }	54	115	100
April	144	96	-----	-----	50	57	82	70
May	144	138	2	2	50	53	108	90
June	138	166	1	1	50	38	105	70
Totals	1,803	1,754	66	66	730	895	1,016	902

1888 AND 1889.	CONVICT SHOES.				HICKORY SHIRTS.			
	Manufactured -----	Issued -----	Received Second Hand -----	Issued Second Hand -----	Manufactured -----	Issued -----	Received Second Hand -----	Issued Second Hand -----
July	163	167	5	11	34	34	3	3
August	160	158	13	14	40	37	7	5
September	160	162	14	15	44	44	6	7
October	195	171	14	12	38	29	-----	-----
November	165	140	13	12	22	31	10	9
December	173	178	10	4	18	15	13	12
January	168	154	16	14	28	31	9	8
February	134	148	29	21	42	42	8	9
March	190	181	30	22	29	16	24	23
April	177	216	18	17	52	26	-----	-----
May	171	181	16	15	19	34	13	12
June	158	165	21	23	32	26	5	6
Totals	2,013	2,021	199	190	398	365	98	94

TABLE No. 22—Continued.

1888 AND 1889.	CITIZEN SHIRTS.		SOCKS.		LAMP CHIMNEYS.		BROOMS.	
	Received	Issued	Received	Issued	Received	Issued	Received	Issued
July	10	10	432	433	144	137	72	72
August	13	14	424	396	144	97	72	72
September	15	16	432	381	288	223	72	50
October	19	15	472	443	144	241	72	65
November	17	17	432	274	288	303	72	75
December	15	7	288	431	432	430	48	40
January	15	15	432	405	144	246	48	73
February	13	11	432	301	288	212	72	50
March	22	16	288	331	422	237	72	62
April	11	20	221	483	216	220	24	75
May	21	20	288	288	216	342	120	92
June	23	31	432	382	216	193	72	43
Totals	194	192	4,573	4,553	2,942	2,931	816	769

TABLE No. 22—Continued.

The Products of the Shoe and Tailor Shops.

1888 AND 1889.	CONVICT.		CITIZEN.		CITIZEN.		CONVICT.	
	New Work—Pairs—	Repairs—Pairs—	New Work—Pairs—	Repairs—Pairs—	New Work—Articles—	Repairs—Articles—	New Work—Articles—	Repairs—Articles—
July	163	59	{ *4 50 }	19	{ *4 62 }	-----	580	-----
August	160	61	{ *5 48 }	21	{ *2 68 }	-----	523	-----
September	160	72	{ *5 51 }	17	{ *3 73 }	-----	631	-----
October	195	56	{ *4 63 }	13	{ *4 53 }	-----	623	-----
November	165	79	{ *6 41 }	23	{ *5 85 }	-----	583	-----
December	173	109	{ *4 41 }	18	{ *3 72 }	-----	751	-----
January	168	111	{ *5 30 }	27	{ *5 70 }	-----	919	-----
February	134	140	{ *3 24 }	16	{ *6 91 }	-----	546	-----
March	190	96	{ *5 28 }	29	{ *4 66 }	-----	891	-----
April	177	76	{ *6 14 }	31	{ *5 80 }	-----	1,472	-----
May	171	64	{ *4 19 }	16	{ *3 60 }	-----	1,293	-----
June	158	72	{ *4 14 }	15	{ *4 86 }	-----	1,174	-----
Totals	2,013	995	478	245	914	-----	9,986	-----

* Special orders.

TABLE No. 22—Continued.

Materials Expended in Manufacture and Repair for the Fortieth Fiscal Year.

1888 AND 1889.	CONVICT.			CITIZEN.		
	Sole Leather— Pounds	Kip Skins— Number	Nails, Screws, Etc. — Pounds	Sole Leather— Pounds	Calf Skins, Linings — Number	Nails, Screws, Etc. — Pounds
<i>Shoe Shop.</i>						
July	605	24	60	145	18	20
August	550	24	80	200	18	35
September	680	24	60	280	18	15
October	600	24	90	150	18	30
November	750	36	75	170	18	25
December	650	36	60	175	18	20
January	790	24	95	125	18	15
February	600	24	75	150	18	40
March	670	20	55	180	18	40
April	700	18	79	50	18	34
May	655	36	69	195	18	55
June	700	24	45	75	18	45
Totals	7,950	314	843	1,895	216	364

1888 AND 1889.	CITIZEN.				CONVICT.		
	Cloth—Yards	Linings and Trim- mings—Yards	Buttons—Dozen	Thread—Spools	Cloth—Yards	Buttons—Dozen	Thread—Spools
<i>Tailor Shop.</i>							
July	28	82	48	72	1,200	200	350
August	53	110	72	96	1,200	225	430
September	160	66	56	60	1,200	205	450
October	{ 105 }	77	32	84	1,406	196	250
November	{ 113 }	65	44	68	1,115	300	410
December	{ 57 }	130	63	49	803	374	352
January	{ 57 }	110	54	37	813	750	225
February	71	144	101	50	850	400	327
March	67	173	36	36	1,051	165	275
April	75	147	42	49	873	210	410
May	37	250	65	57	435	277	325
June	59	174	96	65	823	312	410
Totals	997	1,528	709	723	11,769	3,614	4,214

TABLE No. 23.

COMPARATIVE TABLE OF MEASUREMENTS OF PRISONERS CONFINED IN SAN QUENTIN STATE PRISON, JUNE 30, 1889.

Height of Prisoners.

No.	No.	No.	No.
Under 5 feet..... 2	5 feet $3\frac{3}{4}$ inches.. 37	5 feet $6\frac{7}{8}$ inches.. 32	5 feet $10\frac{1}{4}$ inches.. 5
5 feet exactly..... 1	5 feet $3\frac{1}{2}$ inches.. 8	5 feet 7 inches.. 15	5 feet $10\frac{3}{8}$ inches.. 11
5 feet $0\frac{1}{4}$ inch..... 0	5 feet $3\frac{3}{8}$ inches.. 15	5 feet $7\frac{1}{8}$ inches.. 59	5 feet $10\frac{1}{2}$ inches.. 2
5 feet $0\frac{1}{2}$ inch..... 1	5 feet $3\frac{1}{4}$ inches.. 12	5 feet $7\frac{1}{4}$ inches.. 12	5 feet $10\frac{3}{4}$ inches.. 9
5 feet $0\frac{3}{4}$ inch..... 2	5 feet 4 inches.. 39	5 feet $7\frac{3}{8}$ inches.. 44	5 feet $10\frac{7}{8}$ inches.. 2
5 feet $0\frac{7}{8}$ inch..... 2	5 feet $4\frac{1}{8}$ inches.. 3	5 feet $7\frac{1}{2}$ inches.. 5	5 feet $10\frac{7}{4}$ inches.. 11
5 feet $0\frac{7}{8}$ inch..... 0	5 feet $4\frac{1}{4}$ inches.. 7	5 feet 7 inches.. 34	5 feet 11 inches.. 2
5 feet 1 inch..... 5	5 feet $4\frac{3}{8}$ inches.. 6	5 feet $7\frac{3}{4}$ inches.. 13	5 feet $11\frac{1}{8}$ inches.. 12
5 feet $1\frac{1}{8}$ inches.. 4	5 feet $4\frac{1}{2}$ inches.. 5	5 feet 7 inches.. 29	5 feet $11\frac{1}{4}$ inches.. 2
5 feet $1\frac{1}{4}$ inches.. 6	5 feet $4\frac{3}{4}$ inches.. 31	5 feet 8 inches.. 4	5 feet $11\frac{3}{8}$ inches.. 8
5 feet $1\frac{1}{2}$ inches.. 3	5 feet $4\frac{7}{8}$ inches.. 5	5 feet $8\frac{1}{8}$ inches.. 37	5 feet $11\frac{1}{2}$ inches.. 5
5 feet $1\frac{3}{4}$ inches.. 7	5 feet $4\frac{7}{8}$ inches.. 16	5 feet $8\frac{1}{4}$ inches.. 3	5 feet 11 inches.. 7
5 feet $1\frac{3}{4}$ inches.. 4	5 feet 5 inches.. 2	5 feet $8\frac{3}{8}$ inches.. 15	6 feet exactly.... 2
5 feet $1\frac{3}{4}$ inches.. 9	5 feet $5\frac{1}{8}$ inches.. 21	5 feet $8\frac{1}{2}$ inches.. 11	6 feet $0\frac{1}{8}$ inch..... 5
5 feet $1\frac{3}{8}$ inches.. 6	5 feet $5\frac{1}{4}$ inches.. 11	5 feet $8\frac{3}{4}$ inches.. 26	6 feet $0\frac{1}{4}$ inch..... 4
5 feet 2 inches.. 17	5 feet $5\frac{3}{8}$ inches.. 30	5 feet $8\frac{7}{8}$ inches.. 10	6 feet $0\frac{3}{8}$ inch..... 1
5 feet $2\frac{1}{8}$ inches.. 2	5 feet $5\frac{1}{2}$ inches.. 9	5 feet $8\frac{7}{4}$ inches.. 2	6 feet $0\frac{1}{2}$ inch..... 1
5 feet $2\frac{1}{4}$ inches.. 7	5 feet $5\frac{3}{4}$ inches.. 28	5 feet 9 inches.. 4	6 feet $0\frac{5}{8}$ inch..... 2
5 feet $2\frac{3}{8}$ inches.. 3	5 feet $5\frac{3}{4}$ inches.. 119	5 feet $9\frac{1}{8}$ inches.. 31	6 feet $0\frac{7}{8}$ inch..... 1
5 feet $2\frac{3}{4}$ inches.. 14	5 feet $5\frac{7}{8}$ inches.. 21	5 feet $9\frac{1}{4}$ inches.. 4	6 feet 1 inch..... 3
5 feet $2\frac{7}{8}$ inches.. 3	5 feet 6 inches.. 17	5 feet $9\frac{3}{8}$ inches.. 12	6 feet $1\frac{1}{8}$ inches.. 1
5 feet $2\frac{3}{4}$ inches.. 15	5 feet $6\frac{1}{8}$ inches.. 51	5 feet $9\frac{1}{2}$ inches.. 5	6 feet 2 inches.. 2
5 feet $2\frac{7}{8}$ inches.. 7	5 feet $6\frac{1}{4}$ inches.. 12	5 feet 9 inches.. 17	6 feet 3 inches.. 1
5 feet 3 inches.. 29	5 feet $6\frac{3}{8}$ inches.. 25	5 feet $9\frac{3}{4}$ inches.. 3	
5 feet $3\frac{1}{8}$ inches.. 19	5 feet $6\frac{1}{2}$ inches.. 18	5 feet $9\frac{7}{8}$ inches.. 24	
5 feet $3\frac{1}{4}$ inches.. 25	5 feet $6\frac{3}{4}$ inches.. 35	5 feet 10 inches.. 4	Total .....1,373
5 feet $3\frac{3}{8}$ inches.. 11	5 feet $6\frac{7}{8}$ inches.. 14	5 feet $10\frac{1}{8}$ inches.. 18	

Between Temples.

No.	No.	No.	No.
$3\frac{3}{4}$ inches..... 7	$4\frac{3}{8}$ inches..... 224	$4\frac{1}{8}$ inches..... 21	$5\frac{1}{4}$ inches..... 3
$4\frac{1}{4}$ inches..... 11	$4\frac{7}{8}$ inches..... 61	$4\frac{3}{4}$ inches..... 2	Over $5\frac{1}{4}$ inches... 0
$4\frac{1}{8}$ inches..... 1	$4\frac{3}{4}$ inches..... 180	$4\frac{1}{4}$ inches..... 1	No measurement. 20
$4\frac{1}{2}$ inches..... 47	$4\frac{9}{8}$ inches..... 116	5 inches..... 2	
$4\frac{3}{8}$ inches..... 61	$4\frac{5}{8}$ inches..... 218	$5\frac{1}{8}$ inches..... 59	Total .....1,373
$4\frac{1}{2}$ inches..... 19	$4\frac{1}{4}$ inches..... 149	$5\frac{1}{4}$ inches..... 71	
$4\frac{5}{16}$ inches..... 74	$4\frac{3}{4}$ inches..... 6	$5\frac{3}{16}$ inches..... 20	

Length of Middle Finger.

No.	No.	No.	No.
$3\frac{1}{8}$ inches and less.. 30	4 inches..... 190	$4\frac{1}{8}$ inches..... 133	Females..... 19
$3\frac{3}{8}$ inches..... 47	$4\frac{1}{4}$ inches..... 380	$4\frac{3}{8}$ inches..... 92	To be measured.. 23
$3\frac{1}{2}$ inches..... 116	$4\frac{1}{2}$ inches..... 111	$4\frac{1}{2}$ inches..... 34	
$3\frac{5}{8}$ inches..... 107	$4\frac{3}{8}$ inches..... 90	5 inches..... 1	Total .....1,373

Length of Feet.

No.	No.	No.	No.
9 inches..... 39	10 inches..... 200	11 inches..... 191	12 in. and over... 40
$9\frac{1}{4}$ inches..... 75	$10\frac{1}{4}$ inches..... 190	$11\frac{1}{4}$ inches..... 89	Females..... 19
$9\frac{1}{2}$ inches..... 126	$10\frac{1}{2}$ inches..... 50	$11\frac{1}{2}$ inches..... 20	To be measured.. 23
$9\frac{3}{4}$ inches..... 90	$10\frac{3}{4}$ inches..... 216	$11\frac{3}{4}$ inches..... 5	Total .....1,373

Length of Forearm.

No.	No.	No.	No.
14 $\frac{1}{2}$ inches 4	17 $\frac{1}{2}$ inches 90	19 $\frac{3}{4}$ inches 21	22 inches 34
15 inches 6	17 $\frac{3}{4}$ inches 12	20 inches 60	22 $\frac{1}{4}$ inches 3
15 $\frac{1}{2}$ inches 11	18 inches 60	20 $\frac{1}{4}$ inches 54	22 $\frac{1}{2}$ in. and over .. 6
16 inches 21	18 $\frac{1}{4}$ inches 110	20 $\frac{1}{2}$ inches 11	Females 19
16 $\frac{1}{4}$ inches 9	18 $\frac{1}{2}$ inches 126	20 $\frac{3}{4}$ inches 76	To be measured .. 23
16 $\frac{3}{4}$ inches 36	18 $\frac{3}{4}$ inches 147	21 inches 97	
16 $\frac{1}{2}$ inches 18	19 inches 30	21 $\frac{1}{4}$ inches 22	Total 1,373
17 inches 50	19 $\frac{1}{4}$ inches 32	21 $\frac{1}{2}$ inches 59	
17 $\frac{1}{4}$ inches 61	19 $\frac{1}{2}$ inches 30	21 $\frac{3}{4}$ inches 35	

Width of Hands.

No.	No.	No.	No.
2 $\frac{3}{4}$ inches 14	3 $\frac{1}{4}$ inches 74	3 $\frac{5}{8}$ inches 132	4 inches 19
2 $\frac{5}{8}$ inches 8	3 $\frac{5}{16}$ inches 187	3 $\frac{1}{2}$ inches 55	Over 4 inches 8
3 inches 17	3 $\frac{3}{8}$ inches 101	3 $\frac{3}{4}$ inches 75	Females 19
3 $\frac{1}{8}$ inches 26	3 $\frac{7}{8}$ inches 124	3 $\frac{7}{8}$ inches 39	To be measured .. 65
3 $\frac{1}{4}$ inches 58	3 $\frac{9}{8}$ inches 156	3 $\frac{7}{4}$ inches 43	
3 $\frac{3}{16}$ inches 36	3 $\frac{9}{16}$ inches 89	3 $\frac{1}{2}$ inches 28	Total 1,373

Length of Nose.

No.	No.	No.	No.
1 $\frac{1}{8}$ inches 32	1 $\frac{7}{8}$ inches 97	2 $\frac{5}{16}$ inches 41	2 $\frac{3}{8}$ inches 93
1 $\frac{1}{4}$ inches 6	1 $\frac{1}{2}$ inches 133	2 $\frac{1}{2}$ inches 3	2 $\frac{1}{2}$ inches 83
1 $\frac{9}{16}$ inches 13	2 inches 6	2 $\frac{7}{16}$ inches 36	2 $\frac{1}{2}$ inches 9
1 $\frac{5}{8}$ inches 24	2 $\frac{1}{8}$ inches 234	2 $\frac{1}{2}$ inches 11	Females 19
1 $\frac{3}{4}$ inches 11	2 $\frac{1}{4}$ inches 40	2 $\frac{1}{2}$ inches 41	To be measured .. 23
1 $\frac{7}{8}$ inches 87	2 $\frac{3}{8}$ inches 17	2 $\frac{1}{2}$ inches 104	
1 $\frac{3}{8}$ inches 17	2 $\frac{1}{4}$ inches 106	2 $\frac{3}{4}$ inches 84	Total 1,373

Diameter of Head.

No.	No.	No.	No.
6 $\frac{1}{2}$ inches 12	7 $\frac{3}{8}$ inches 61	7 $\frac{1}{2}$ inches 21	8 $\frac{5}{16}$ inches 10
6 $\frac{3}{8}$ inches 7	7 $\frac{7}{16}$ inches 4	7 $\frac{1}{2}$ inches 4	8 $\frac{3}{8}$ inches 4
6 $\frac{3}{4}$ inches 191	7 $\frac{1}{2}$ inches 71	7 $\frac{1}{2}$ inches 7	Females 19
7 inches 516	7 $\frac{9}{16}$ inches 9	8 inches 5	To be measured .. 23
7 $\frac{1}{16}$ inches 11	7 $\frac{5}{8}$ inches 18	8 $\frac{1}{16}$ inches 12	
7 $\frac{1}{8}$ inches 127	7 $\frac{1}{2}$ inches 47	8 $\frac{1}{8}$ inches 11	Total 1,373
7 $\frac{3}{16}$ inches 17	7 $\frac{1}{4}$ inches 81	8 $\frac{3}{16}$ inches 29	
7 $\frac{5}{16}$ inches 2	7 $\frac{3}{4}$ inches 3	8 $\frac{1}{4}$ inches 51	

Chest Measurement.

No.	No.	No.	No.
30 inches 2	35 inches 116	39 inches 105	45 inches 70
31 inches 4	35 $\frac{1}{2}$ inches 7	39 $\frac{1}{2}$ inches 4	46 inches 10
32 inches 18	36 inches 111	40 inches 72	47 inches 2
32 $\frac{1}{4}$ inches 11	36 $\frac{1}{2}$ inches 9	40 $\frac{1}{2}$ inches 1	49 inches 2
33 inches 2	37 inches 177	41 inches 5	Females 19
33 $\frac{1}{2}$ inches 115	37 $\frac{1}{2}$ inches 41	42 inches 3	To be measured .. 23
34 inches 40	38 inches 214	43 inches 4	
34 $\frac{1}{2}$ inches 81	38 $\frac{1}{2}$ inches 90	44 inches 15	Total 1,373

TABLE No. 24.

Report of Number of Days of Labor for Fiscal Year Ending June 30, 1889—Productive Class.

MONTHS.	Join- ment Depart- ment	Door Depart- ment	Chair Depart- ment	Engineer's De- partment	Foundry De- partment	Paint Shop	Tin Shop	Plumbing Shop	Cooper Shop
1888.									
July	14,594	3,492	50	393	375	150	120	120	25
August	19,473	4,224	54	413	403	155	129	124	27
September	15,177	4,231	50	441	375	160	150	120	25
October	16,773	5,122	54	472	425	201	135	111	27
November	15,680	4,675	50	391	353	175	110	100	25
December	16,868	4,764	50	390	344	175	100	100	25
1889.									
January	16,266	4,702	52	392	338	182	104	104	26
February	15,864	4,157	48	367	312	137	96	72	24
March	20,524	341	52	330	433	151	104	81	26
April	20,973	275	76	214	447	186	104	104	26
May	21,507	-----	81	217	423	161	108	112	27
June	19,479	-----	75	210	375	120	120	150	27
Totals	213,178	35,983	692	4,230	4,603	1,953	1,380	1,298	310
MONTHS.	Carpenter Shop	Blacksmiths	Wheelwrights	Upholsterers	Beltmaker	Locksmith	Improvements	Road Gang	Sheddores
1888.									
July	365	150	75	50	25	31	608	1,046	543
August	259	161	81	54	27	31	540	1,421	352
September	197	150	75	50	25	30	494	1,682	391
October	248	180	67	48	27	31	269	928	398
November	215	163	50	50	25	30	143	269	306
December	223	150	50	50	25	31	111	225	388
1889.									
January	208	155	52	52	26	31	119	698	524
February	176	120	48	48	24	28	96	690	505
March	215	179	52	52	26	31	104	1,246	593
April	238	182	52	52	26	31	113	1,762	658
May	255	189	54	63	27	31	110	2,566	481
June	276	150	50	54	27	30	100	2,638	414
Totals	2,875	1,929	706	623	310	366	2,807	15,171	5,553

TABLE No. 24—Continued.

MONTHS.	Rock Pile	Chicken Ranch	Hog Ranch	Stables	Vegetable Gardens	Flower Gardens	Coal Yard	Female Department	Lumbermen	Grand Total
1888.										
July	29	31	31	766	290	369	31	468	133	24,360
August	53	31	31	739	220	384	31	486	179	30,082
September	314	30	30	822	190	330	30	475	142	26,186
October	27	31	31	804	224	348	31	588	198	27,798
November	18	30	30	687	300	303	30	467	106	24,781
December	25	31	31	610	371	305	31	424	197	26,094
1889.										
January	26	31	31	678	229	316	31	426	123	25,922
February	24	28	28	623	227	319	28	425	91	24,605
March	26	31	31	690	542	420	31	407	48	26,766
April	26	30	30	734	673	455	30	417	-----	27,914
May	27	31	31	800	854	476	31	475	-----	29,137
June	25	30	30	776	982	433	30	477	-----	27,078
Totals	620	365	365	8,729	5,102	4,458	365	5,535	1,217	320,723

Non-Productive Class.

MONTHS.	Warden's Office	Deputy Warden's Office	Turnkey's Office	Secretary's Office	Guards' Department	Commissary	Library Department	Laundry Department	Tailor Shop	Shoe Shop	Barber Shop
1888.											
July	31	62	180	93	155	277	62	570	262	216	204
August	31	62	170	93	127	297	62	607	270	243	184
September	30	70	150	90	120	275	66	608	252	225	180
October	31	93	186	91	126	274	92	701	282	303	185
November	30	48	180	90	120	286	84	684	245	289	168
December	31	31	186	93	120	257	64	712	300	307	180
1889.											
January	31	31	186	116	124	283	62	743	313	312	180
February	28	28	168	112	112	264	56	686	288	288	175
March	31	31	186	114	124	286	90	799	398	312	221
April	30	30	167	90	137	308	90	828	440	302	210
May	31	31	170	93	155	319	115	881	437	327	210
June	30	30	180	90	150	300	120	808	424	275	207
Totals	365	547	2,109	1,165	1,570	3,426	963	8,627	3,911	3,399	2,314

TABLE No. 24—Continued.

MONTHS.	Cell and Room Tenders	Bath-tank Tenders	Door Tenders	Gate Tenders	Lamp-lighters	Hospital Nurses	White-washers	Sweepers	Scavengers	General Kitchen	Outside Kitchen
1888.											
July	519	62	276	238	39	124	250	482	213	1,444	449
August	523	62	309	254	62	124	270	481	155	1,512	434
September	539	60	295	302	60	120	205	475	182	1,512	411
October	558	62	324	248	56	124	208	511	210	1,603	403
November	539	60	253	240	60	124	122	436	205	1,597	390
December	558	61	270	245	62	124	124	456	283	1,423	403
1889.											
January	585	62	260	230	35	124	110	536	240	1,474	403
February	532	56	247	214	28	112	125	528	211	1,515	364
March	589	62	182	290	31	124	207	172	233	1,832	403
April	570	60	159	297	46	120	206	182	210	1,858	398
May	589	31	97	310	62	124	216	211	235	2,049	401
June	570	30	75	300	60	120	176	185	240	1,988	390
Totals	6,671	668	2,747	3,168	601	1,464	2,219	4,655	2,617	19,807	4,849
MONTHS.	Hospital Kitchen	House Servants	Electricians	Messengers	Telegraph Operators	Photographers	Cripples, etc.	Patients in Hospital	Unemployed	Daily Excuses, etc.	Grand Total
1888.											
July	186	620	80	210	31	31	280	195	2,827	357	11,025
August	186	647	93	207	31	31	428	218	-----	368	8,541
September	180	630	90	210	30	30	359	176	-----	381	8,313
October	186	559	93	217	31	31	368	194	-----	381	8,731
November	180	441	90	228	30	60	250	228	330	285	8,372
December	186	439	76	245	31	62	240	175	104	297	8,145
1889.											
January	188	465	62	217	31	62	256	147	1,149	230	9,247
February	168	392	56	196	8	55	112	138	750	334	8,356
March	186	409	62	204	-----	62	130	189	892	470	9,321
April	181	396	83	215	-----	60	169	160	-----	586	8,588
May	204	430	93	216	-----	62	243	180	139	531	9,192
June	210	437	90	210	-----	60	294	186	-----	432	8,667
Totals	2,241	5,865	968	2,575	223	606	3,129	2,186	6,191	4,652	106,498

PHYSICIAN'S REPORT.

To Gen. JOHN MCCOMB, Warden California State Prison at San Quentin:

SIR: In making my report for the fiscal year ending June 30, 1889, I desire to call your attention to the unusual number of deaths from consumption—seventeen, half the whole number of deaths, from this fell scourge. Nearly all came here with the disease perfectly developed and easily distinguishable. I now have five men in the hospital, who will eventually die with this awful disease, whose lives could have been prolonged had they been sent to a more salubrious climate.

Therefore, I am in hearty accord with Dr. Ruggles, of the State Board of Health, when he proposes to have the Board issue a circular addressed to all Judges, asking them to carefully examine (or have the County Physician do so) all prisoners, and have them send those who have the slightest lung trouble to Folsom, for this reason: that the increased dryness of the air at that place is greatly to the advantage of all who suffer from lung troubles, more particularly consumption and asthma.

It is well known that the bay climate is the worst possible for those troubles; therefore, for the sake of extending the life of those suffering from these troubles and for the better preservation of the health of the convict, it would be only humane to send all who show the slightest disease of the lungs to Folsom.

Another thing is the great number of Spaniards who develop this disease. After being confined here a few weeks, they commence coughing, and rapidly go down, are taken to the hospital, and eventually die in spite of all medication.

The jute mill seems to be the worst place for them, and I am very careful to take them out of the mill when my attention is first called to them and put them in the road gang, where they sometimes pick up, but in nearly every case the relief is but temporary, and they soon sicken and die.

Taking data from all these facts, I would most strongly urge you to call attention to these facts, and urge upon the Board of Directors to coöperate with the Board of Health and call upon the different Judges to send all who are so afflicted to Folsom.

The health of the prisoners has been good during the past year; but deaths that have occurred have been for the most part Spaniards and old men who have been in prison for a long time.

The sanitary conditions are as good as one could expect from old buildings which are not of modern date or design, and have many defects, some of which have been remodeled, and others will always remain as long as the buildings stand.

I would call attention to the necessity of having a cesspool constructed, to empty buckets in the morning; also the advisability of having around the water-closets paved with bituminous rock or asphalt, instead of as now with bricks, for the reason that there is always more or less slop coming from a number of men emptying buckets, and this the bricks absorb, making during the heat of the warm days an unpleasant odor, while a

bituminous rock pavement could be easily kept clean, and no smell would arise.

The old bunks have been torn out and replaced with new ones in nearly all cells and rooms, making it much easier to clean.

The new bathing tank is a marked success, as I predicted it would be in my last report, it being in the upper yard where the men have access to it at all times. They have no excuse for not bathing, and I don't think there are but very few men but what take advantage of the privilege, and take a bath at least once a week. And as cleanliness is next to Godliness, this in a great measure prevents sickness.

As it comes within my province to inspect the food, and see that what the prisoners get is wholesome and fit to eat, I will say the food is good and wholesome—much better than one half the men would get were they free.

The mess consists of beans, mush, bread of fine quality, and plenty of good coffee, for breakfast. Boiled beef, stew, potatoes, corned beef once a week, and fish once a week, for dinner; and for supper beef stew with vegetables, beans (two kinds—red and white), and tea instead of coffee. This, together with plenty of bread of the best quality at all meals (Chinamen have rice at all meals), constitutes the bill of fare, which I think plenty good enough for men who are sent here for punishment, not for a picnic.

The death rate continues to be somewhat large. This is owing to the large per cent of Spaniards, Indians, and Chinamen who, from the very nature of things, are prone to develop consumption, scrofula, and other kindred diseases.

The average number of inmates was one thousand three hundred and thirty-eight, with a total of thirty-four deaths, making a death rate of $2\frac{1}{2}$ per cent. Of this number, two died by suicide, and one was murdered. Taking this from the total will leave but $2\frac{5}{13}$ per cent.

I am in hopes the death rate will be much smaller the present year. All indications point that way.

I find, on referring to the books, that there has been five thousand and thirty-nine calls on the doctor for treatment, of which two thousand two hundred and forty-four were excused from labor—some for a length of time, while the most were for trivial ailments and only had an excuse for the day.

On dividing these calls into quarters, they show but very little difference, showing that there has been no epidemic of any kind:

First quarter—Calls, one thousand four hundred and one; excused, six hundred and fifteen.

Second quarter—Calls, one thousand and ninety-three; excused, four hundred and ninety-eight.

Third quarter—Calls, one thousand two hundred and sixty-three; excused, five hundred and thirty-six.

Fourth quarter—Calls, one thousand two hundred and seventy-two; excused, five hundred and ninety-three.

Making a total (as I have already said) of five thousand and thirty-nine calls and two thousand two hundred and forty-four excused.

The following table shows the number of deaths, from what they died, the month in which they died, and the number in hospital during the month:

July, 1888.—Number in hospital, 10. 11302—Samuel Stevens, consumption; 9978—Ah Wan, opium habit; 11715—Louis Garcia, consumption.

August, 1888.—Number in hospital, 8. 11819—Tomas, Indian, consumption; 12971—Wm. Clements, consumption.

September, 1888.—Number in hospital, 12. No deaths.

October, 1888.—Number in hospital, 12. 12125—Santiago Sales, scrofula; 11458—William Scollard, pneumonia; 13174—Shortrom Yokosi, consumption.

November, 1888.—Number in hospital, 17. 13011—George Daily, suicided by jumping from balcony of sash and door factory; 5800—Tesdero Morena, cancer of throat; 12909—John O'Brien, consumption; 10111—Ah You, consumption; 11383—Indian Johnny, consumption; 12916—Isaac Farren, inflammation of bowels; 12570—Billy Ketchum, scrofula.

December, 1888.—Number in hospital, 12. 12608—Ysedro Menchago, general debility; 12484—Charles Larkin, consumption; 12181—Annie Thompson, epilepsy; 12275—Daniel McCarthy, consumption.

January, 1889.—Number in hospital, 11. 12882—Fred. Gillett, general debility; 12818—Ybarro Branos, consumption; 13042—Ah Hing, heart disease; 12427—Ah Sam, consumption.

February, 1889.—Number in hospital, 11. 13128—J. G. Crawford, suicided by hanging; 12382—Henry Lewis, murdered; 12807—John Mahoney, consumption.

March, 1889.—Number in hospital, 13. 10490—José Morfica, consumption; 13338—Juan Chino, cirrhosis of liver.

April, 1889.—Number in hospital, 13. 12650—John Doyle, inflammation of bowels.

May, 1889.—Number in hospital, 15. 12481—George West, syphilis; 12726—Juan Lopez, consumption.

June, 1889.—Number in hospital, 15. 13106—James Smith, heart disease; 9156—Jesus Ballos, consumption; 13552—Thornton McGee, consumption.

RECAPITULATION.

Died of consumption	17	Died of opium habit	1
Died of heart disease	2	Died of cancer of throat	1
Died of syphilis	1	Died of pneumonia	1
Died of scrofula	2	Died of general debility	2
Committed suicide	2	Died of epilepsy	1
Died of inflammation of bowels	2		
Died of cirrhosis of liver	1	Total	34
Murdered	1		

In conclusion, I desire to express my gratitude to you, sir, for uniform courtesy and prompt attention to all measures I suggested for the sanitary good of the prison, and to other officers for courtesy and kindly good feeling.

Very respectfully,

F. C. DURANT, M.D.

CHAPLAIN'S REPORT.

Hon. JOHN MCCOMB, Warden :

DEAR SIR: I herewith respectfully submit my report of the departments under my charge for the year ending June 30, 1889. As I have, at the beginning of each month, made a report to you of the transactions of the previous month, this document will be little more than a summary of those twelve reports.

LIBRARY.

Again I have the pleasure to report that the library has been as popular and well patronized an institution as in any previous year. The prisoners appreciate, to the full, this means of mental entertainment, and are eager to avail themselves of the privilege to draw books from the shelves of the library. I must again express my regret that the Legislature does not place at the disposal of the Warden, monthly, a small sum, to add to the library a few, at least, of the current popular issues of the day. The additions of the year have been limited to the gift of a few second-hand volumes from the Mechanics' Library of San Francisco, and the binding of the monthly magazines, for which we are again indebted, mainly, to the generous liberality of Mr. George W. Gibbs, a merchant of San Francisco. The writer and the prisoners are grateful to him for his kind remembrance of those who are in "the house of bondage." I append a particular statement of the library during the year:

Books on the shelves July 1, 1888, five thousand two hundred and six; added during the year, eighty; condemned as too dilapidated for further use, ninety; missing, two hundred and four; leaving four thousand nine hundred and ninety-two as the present number. Of these, three thousand five hundred and fifty belong to the public, and one thousand three hundred and eighty-three to the Catholic side of the library.

The issues for the year were twelve thousand two hundred and twenty-seven, being a monthly average of one thousand and nineteen. Of these issues ten thousand nine hundred and forty-one were from the public, or general side, and one thousand two hundred and eighty-six from the Catholic. Besides these books of the library, we have still an assortment of about one thousand four hundred bibles, testaments, school, and prayer and hymn books.

DONATIONS.

These have been as liberal as in most of the former years, aggregating as follows:

Newspapers—miscellaneous	2,546
Newspapers—religious	1,179
Newspapers—foreign	459
Newspapers—scientific	30
Newspapers—illustrated	136
Magazines and pamphlets	699
Books	90
Almanacs and calendars	1,700

The donors, to whom suitable acknowledgment was made at the time, are: The Rev. James Woodworth, Miss Stebbins, Mr. James Linforth, heirs of General Allen, Mr. A. C. Bradford, Cosmos Club, Mr. George W. Gibbs, Mechanics' Library, San Francisco; Miss C. Curtiss, Mrs. Dr. M. A. McMath, San José; Mrs. Kemble, Mrs. Dr. McClure, Oakland; Mrs. P. Hendry, E. R. Highton, Alameda; R. M. Sherman, Miss Chase, Santa Clara; Mrs. Brown, Dr. Hinman, unknown donor; Mrs. Lissak, Dr. Hasey, Pennsylvania; Mrs. Tharp, San Quentin. The Chaplain and his family have also added somewhat to the pile of donations.

BINDERY.

Much work has been done in this department, but it has not been worked up to its capacity for want of necessary material. It is still in charge of the same prisoners, who have had one assistant a part of the time. The work performed has been highly creditable to the binders. It foots up as follows:

Books bound and rebound	199
Books repaired	461
Copybooks made	239
Tablets for the offices	136

EMPLOYÉS.

There are two assistants in the library, one having special charge of the Catholic side, one bookbinder, and an assistant—four in all, who also do the janitor's work. All, of course, are prisoners.

I have attended fifteen funerals during the year—a small number when compared with previous years, and certainly a small per cent of the more than one thousand three hundred inmates of the prison.

RELIGIOUS SERVICES.

These have been regularly held, as heretofore, in the prison chapel at 9:15 A. M. on each Sunday. On the second and fourth Sunday of each month, the services of the Roman Catholic Church are held by the Rev. H. Lagan, of San Rafael, and his assistants. The other Sundays are occupied either by myself or by other ministers, who have, from time to time, kindly accepted my invitation to preach to the prisoners. The Rev. James Woodworth, of San Francisco, Secretary of the Prison Commission, has, as usual, officiated on the third Sunday of each month. The attendance during the year has been larger than on previous years, the chapel being well filled each Sunday, and sometimes crowded. I have administered the holy communion four times to the little band of professing Christians. On the twenty-third of June, Archbishop Riordan, of San Francisco, visited the prison and administered the holy rite of confirmation to a large number of recipients. His visit, official acts, and earnest address to the prisoners, made a deep and, I trust, a lasting impression upon the men. I suppose that the Assistant Chaplain has given you a full account of this interesting service.

It is my intention, at an early day, to have a confirmation held by the bishops of the Protestant Episcopal Church, and believe that a large class will be ready and anxious to receive the rite of "laying on of hands."

I believe and think a careful observation of nearly eight years enables me to speak with some confidence that the effect of all these religious services

is not only good upon the attending prisoners personally, but also promotive of good discipline in the prison generally. Many of the prisoners are sincerely desirous of a thorough reformation, and in their endeavors to accomplish this object, these religious services exert an influence for good, second to none in a penological institution.

Services are still held in the women's department, on the first and third Sundays of each month. The attendance is small, but the services are warmly greeted by the few who do attend.

The Sisters of Mercy continue their monthly visits to the prison. I always give them a hearty greeting, and my wishes for success in their self-denying efforts to do good, not only to those of their own sex, but also to the men in the hospital, and elsewhere in the prison. Would that some other "holy women" would imitate their Christian example.

Respectfully submitted.

WM. H. HILL,
Chaplain.

SAN QUENTIN, July 1, 1889.

CHAPLAIN'S REPORT.

Hon. JOHN MCCOMB, Warden of San Quentin :

DEAR SIR: In April of last year the Board of Prison Directors, in that spirit of fair dealing that characterizes all high-minded citizens, gave the unfortunate Catholic prisoners equal rights with their Protestant associates. At the request of His Grace, Most Reverend Archbishop Riordan, and at your own strong recommendation, prompted by your sense of right and justice, the Directors, by a unanimous vote, appointed a Catholic Chaplain to minister to Catholic prisoners. Since then my assistants and myself have worked, with a certain amount of success, for the spiritual interests of those professing our faith, and for the material interests of the State, which must be affected for good or for evil by the moral character of its citizens. It affords me great pleasure to state that every effort was encouraged by those in authority. Indeed, I gratefully acknowledge the uniform kindness and constant good will manifested by the Warden and every subordinate officer. Many of the grateful prisoners have many times expressed similar feelings in more expressive language for this happy state of affairs. There are many generous and appreciative souls behind bolts and bars, upon whom kindness is never wasted. Every little shadow of attention or consideration brings a ray of light into their ruined lives, fills them with inexpressible gratitude, and makes the hardened man a child in confidence and obedience.

Before my connection with the prison, I had very different ideas of the unfortunates, branded with the stigma of social ostracism, made to wear a garb of shame, and condemned to dwell in living tombs. To my eye, every convict was a criminal to be shunned or watched. I am now satisfied, as I am of my own existence, that there are innocent, yes, saintly men in San Quentin. I believe that hearts as good, as loyal, and as true, beat under coarse, striped flannel, as under the broadcloth, the velvet, and purple of a glittering world; hearts, that in the wild moment of passion, or in the evil hour of insane drunkenness, have yielded to excesses and stooped to crimes which they would give a thousand lives to blot away. There are brutal natures, vicious creatures, and human monsters, who need iron tanks and armed keepers, and who are not at home except in prison. It is not hard to distinguish these different classes of men in the prison yard. The religious life of the prisoner is the greatest comfort to the first and better element, and makes them, in a manner, resigned, if not satisfied, with their sad fate.

It was for them a day of great joy and consolation when the chief pastor of their souls paid his first official visit to their dismal home, consoled them in their sorrow, encouraged them by loving and fatherly advice, broke to them the bread of life, and placed on their brows the standard of Christ, which shall be for them in the future the standard of victory. Over two hundred convicts received holy communion, and over two hundred more the sacrament of confirmation at his hands. A considerable amount of time and labor had been expended for this happy result. Four priests labored faithfully for the greater part of the preceding week, in hearing the

confessions and instructing the prisoners. Non-Catholics may consider it as they will, but the power that takes the man of passion and makes him docile as a child; brings the hoary-headed old sinners, and the young man full of passion and resistance, on his humble knees, and, in the language of sobs and tears, extracts from him the history of his dark and chequered life; brings from his lips, yes, from his heart, expressions of sorrow and regret for the evil past, and promises reform for the future—this is a power for good that few can appreciate, who have not seen or experienced its magnitude. This power was at large during the mission at San Quentin, and this happy fact we owe to you. In the name, therefore, of the Archbishop of the diocese, in the name of the priests of the State, and particularly in the name of the prisoners, I sincerely thank you for the true spirit of religious liberty and equality that marks your administration.

We visit the prison frequently in the discharge of our duties. On every second and fourth Sundays of the month, at 9:15 A. M., mass is celebrated and a sermon preached. On the same day there is catechetical instructions from 1 to 2 P. M. The large Chapel Hall is always packed with a respectful and, I believe, an average religious congregation. Their conduct is all that could be desired in a fashionable city congregation.

Good results must necessarily follow from the Sunday services. The chapel is not suited for divine service. There is nothing in it to create or foster devotion and piety. In the first place, there are not enough benches. The walls are rough brick; the roof ugly and open. Almost alongside the platform on which the priest celebrates mass and from which the minister preaches, there is an article of furniture that should be located elsewhere. The chapel should, I believe, be put in proper order for the sacred services of religion. No doubt but as soon as the many and vast improvements inaugurated during your administration are fairly under way, you will direct your attention to the miserable chapel, and make it what it should be. The chapel serves also for a library. This department is under the jurisdiction of Rev. Mr. Hill and two assistants. One is a Catholic, and is supposed to be particularly interested in the Catholic section of the library. The library is tolerably fair. There is a great deal of miscellaneous and light reading. The reverend Chaplain has already made an exhaustive report, every word of which I indorse, and particularly those relating to the binding. We attended many sick calls during the year, and in relation to them I wish to express my appreciation of the Christian spirit of Mr. Hill, who always telegraphs or telephones us as soon as he sees danger of death to a poor Catholic patient.

There is no compulsion to attend divine service, and of this I approve. I highly and heartily approve of your action in throwing open every prison door on Sunday morning, giving every prisoner the freedom of the yard for the day. I have been often delighted to see the young men playing and jumping and indulging in all kinds of boyish amusements, for then I knew that, for the passing hour at least, they forgot their sorrows and looked not on the towering walls, the gloomy cell, and the frowning guns on the posts.

The female portion of the prison we attend once per month. We say mass or give an instruction. We visit them as occasion requires during the month. They are always most respectful and docile. All their surroundings are clean and neat; their rooms, particularly, are models of taste and culture. Wishing you a long term as Warden of San Quentin,

Yours, very respectfully,

H. LAGAN, Chaplain.

REPORT OF THE WARDEN

OF THE

State Prison at Folsom, California.

WARDEN'S REPORT.

To the honorable State Board of Prison Directors:

GENTLEMEN: I have the honor to submit herewith my annual report for the fortieth fiscal year, also the reports of the Deputy Warden, Physician, and Commissary, showing in detail the operations of the Folsom State Prison.

The report of the Clerk, also submitted, sets forth fully the financial transactions of the prison for the year.

The appropriation made by the Legislature for the thirty-ninth and fortieth fiscal years was \$250,000. We used for the support of the prison during the thirty-ninth fiscal year, \$113,573 72; during the fortieth fiscal year, \$116,039 46, making a total of \$229,613 18; leaving a balance of \$20,386 82 of the appropriation unexpended after paying all liabilities for the year, which will, by law, revert to the General Fund in the State Treasury. By reference to Table No. 8, of the Clerk's report, it will be seen that we have in the Folsom State Prison Fund, \$11,359 66; due from sundry debtors, \$5,024 56; cash on hand, \$1,532 11; total available cash assets, after paying all liabilities for the fortieth fiscal year, \$17,916 33. This amount will be available for use during the ensuing two years, which, added to the appropriation made by the last Legislature, will be ample to meet all requirements, notwithstanding the prospect of a large increase of the number of convicts on hand, and the decrease in the appropriation of \$30,000.

We have done but little quarrying of stone for sale, owing to the employment of all our laboring force on the dam and canal. The demand for building-stone, curbing, crosswalk, and trimmings for buildings is steadily on the increase, at advanced prices over last year, with a prospect of a much greater increase in the future. We could readily find sale for all the granite we can quarry and dress. I have faith in the future operations of the quarry when we are in a position to utilize our labor in that direction.

Table No. 3, of the Clerk's report, shows the maintaining cost of the prison for the year in detail, the total being \$97,445 09. The average number of convicts on hand for the year being 488.3, makes the per capita per diem cost fifty-four cents and six mills. This is a larger pro rata than it should be, and is due to several causes. The average number of prisoners was reduced from 539 the previous year, to 488.3 by the transfer of one hundred and fifty prisoners to San Quentin in the latter part of the previous year. The working of all our available force outside the limits of the prison, scattered along the bank and bed of the American River for some distance, necessitated the strengthening of the guard line to prevent escapes; hence it will be seen that the salary account of \$39,726 47, or 45 per cent of the total maintaining cost, is largely out of proportion to the number of convicts in the prison, and that of necessity increased the per capita per diem cost. As stated in a former report, it requires a certain number of officers to properly transact the business of the prison, and that

force would not be increased if there were one thousand five hundred convicts instead of five hundred. It also takes a certain number of guards to form a secure line in the absence of a wall, and when the line is formed it would be as easy to securely hold eight hundred as four hundred convicts, at least the increase of the guard force would be but a small per cent of the increase of prisoners. The salary payroll should not exceed 30 per cent of the total maintaining cost, and would not, except in the contingency referred to. Another item of increased cost is in the character of work we are now engaged in. The quarrying of stone, and the handling of loaded cars and heavy machinery, are destructive of clothing and shoes to a much greater extent than any other kind of work, as well as requiring more substantial food than the lighter employments of the factory. Many of these causes of increased cost will be eliminated during the ensuing year. The number of convicts will average at least one hundred more daily, which will make but little increase in the total cost. I hope to reduce the per capita per diem down to the average of the best managed prisons in the United States.

We suffered some loss by fire during the year. Two wooden buildings used as a carpenter shop, tin shop, plumber shop, paint shop, photograph gallery, and sawmill, were burned July 1, 1888. The day was exceedingly hot, and from the inflammable nature of the material, they burned so quickly that we could not save any portion of the contents. Again, in October we lost our hay and cow barn and one hundred tons of hay by fire. For detailed account of our loss, see Table No. 6, of Clerk's report.

The farm has been unusually productive; we have cured, baled, and stored nearly two hundred tons of hay of prime quality, which will exceed our requirements for the ensuing year. A much larger area was planted in garden with good results. The yield of grapes was also large, and materially improved the diet of the prisoners' mess without increasing the cost. In the latter part of winter we planted out eleven acres of choice varieties of table grapes and fruit trees, to make the beginning of a future orchard and vineyard. Their growth so far has exceeded our expectations, and demonstrated that the soil on the farm is peculiarly adapted to the raising of vegetables, fruit, and vines. I hope to increase the orchard and vineyard next year, so as to meet the full requirements of the prison, for both employes and prisoners. I find the latter take great interest in the raising of vegetables, fruit, and grapes, as they are, in a measure, the beneficiaries of their own labor. With plenty of water, which we will have upon the completion of our power house, this can and will be made a model farm, a credit to the State, and an example for the private citizen to follow.

The report of the Deputy Warden gives some interesting statistical information regarding the convicts. Two hundred and sixty-two convicts were received and one hundred and thirty-four were discharged, a net gain of one hundred and twenty-eight during the year; leaving five hundred and forty-nine on hand at the close, as against four hundred and twenty-one the previous year. At the close of the year our full number was on hand, except those legally discharged; in other words, we had two escapes, both of whom were captured and returned to the prison. This is a flattering tribute to the efficiency of our guards, when it is remembered that we are working our entire force outside the prison wall, almost in the wilderness.

The Physician's report is especially called to your attention. But six deaths occurred during the year, an average of 1.22 per cent of our population. Of this number one was killed by the guards while attempting to run through the line, one was killed by the falling of a derrick, and one died from the effects of injuries received in jumping from the train while

being conveyed to the prison, leaving but three natural deaths, neither of which was due to any local or climatic causes. Better proof of the splendid sanitary condition of the prison, the healthfulness of the locality, and the care and attention given the sick and afflicted could not be adduced. If anything further was needed it could be supplied in the limited cost of the Hospital Department, as shown in Table No. 3, Clerk's report.

The discipline amongst the prisoners has been uniformly good. They have worked well, and complied cheerfully with the rules adopted for their guidance. But few punishments have been necessary, and only for trivial offenses. I commend them highly for good conduct and faithful labor.

THE DAM AND CANAL.

The completion of this undertaking is no longer a theory; it is an assured and almost an accomplished fact. When we closed down work on the dam in November last, on account of the high water, the many thousand cubic yards of masonry that were buried in the foundation, left but little to be seen as an evidence of our summer's work, and it was with some hesitation that we asked the Legislature for an appropriation of \$112,500 to build the State power house, including a large pump to raise water for irrigation and domestic uses, an electric light and power plant, etc. The employment of convict labor upon large public works of this kind seemed to strike a popular chord, while the advantages and economy of water power over steam power were so apparent that the Legislature, by a unanimous vote of both houses, granted the appropriation asked for. Since the adjournment of the Legislature work has progressed vigorously and favorably, and, at the date of this report, September first, it is demonstrated that the dam will be completed across the river early in November. The wingdam and headgates will take some four months longer. When that is accomplished, the entire force will be placed on the State power house and canal, which will be completed, and the resultant power be in use by the State before our next annual report is submitted. No one can appreciate the magnitude of the work except by personal inspection. It has been examined by eminent engineers and pronounced by them to be the best and largest work of the kind in America. In fact, its massiveness and unusual stability were sharply criticised, until the terrible disaster in Conemaugh Valley, Pennsylvania, brought the American people to a realizing sense of the destruction that could be caused by such structures when proper attention was not given to the power of so large a body of water held in check by artificial means. There will be no repetition of that disaster in this case unless all engineering skill is at fault. The Folsom Water Power Company has spared no expense in material, and as the State is out nothing but the convict labor, it has been deemed best to make the work a monument of industry for all time, and a lasting credit to his Excellency Governor Waterman, and to the honorable Board of Prison Directors, who have given it their official and personal support from its inception to the present time. As the advantages that will accrue to the State from the completion of this work, and the application of the resultant power, were fully set forth in my last report, it is unnecessary to recapitulate here. The Legislature will have to determine at its next session what industries it will be best for the State to engage in.

In conclusion, I desire to express my sincere thanks to the Governor of the State, and all the members of your honorable Board, for the hearty support given the management of the prison during the past year. It has materially lessened the duties imposed on me personally, and greatly

facilitated the maintenance of good order and discipline, rendering the administration of prison affairs a pleasure instead of a trial. The officers and guards of the prison are also entitled to the thanks of the honorable Board and myself. They have been unremitting in their efforts to advance the best interests of the prison and the State; have faithfully and intelligently carried out all instructions given them, and manifested an earnest desire to promote harmony and good feeling toward each other.

Respectfully submitted.

CHARLES AULL,
Warden Folsom State Prison.

CLERK'S REPORT.

STATE PRISON AT FOLSOM, CALIFORNIA, }
September 1, 1889. }

To the honorable State Board of Prison Directors:

GENTLEMEN: I herewith submit for your consideration a full statement of the financial transactions of this prison for the fortieth fiscal year, ending June 30, 1889.

Very respectfully,

W. W. CUNNINGHAM, Clerk.

TABLE No. 1.

Cash Receipts of the State Prison at Folsom during the Fortieth Fiscal Year, ending June 30, 1889.

MONTH.	Sales of Granite.	General Appropriation 39th Fiscal Year.	General Appropriation 40th Fiscal Year.	Rentals, Wooden Buildings.	Sales, Hospital Department.	Laundry.	United States Government.	Folsom Water Power Co.	Insurance.	Miscellaneous.	Total.
Balance June 30, 1888.											
1888—July	\$1,043 04	\$8,329 87	\$9,532 52	\$37 00	\$2 00	\$14 85	\$116 50			\$2 00	\$1,492 25
August	250 00	9,868 56	9,113 98	54 00		22 03	45 50				9,545 26
September	196 00		8,882 35	37 00	7 50		171 30	\$206 27			19,727 11
October	15 00		9,580 31	60 00	1 00		46 00	149 62	\$2,000 00	34 00	9,399 98
November			9,905 32	23 00	8 05		459 33			15 40	11,309 92
December			9,577 75	30 00	5 25		46 00			21 70	9,813 38
1889—January	205 30		9,755 41	33 00	25		138 00	180 34		19 70	10,001 27
February		50 00	9,630 34	33 00	2 25		45 00				10,472 67
March	15 00		8,456 85	33 00	2 00		135 00	230 53			9,886 66
April			13,689 48	33 00	3 25		45 00				10,048 87
May	15 00		3,327 65	33 00	2 25						3,493 10
June	57 50			33 00	1 00			231 33		1 65	13,784 73
Totals	\$1,796 84	\$18,248 43	\$96,451 96	\$406 00	\$34 80	\$36 88	\$1,202 63	\$998 09	\$2,000 00	\$94 45	\$122,762 33

TABLE No. 3.

Exhibit of Cost of Maintaining Prisoners at State Prison at Folsom for the Fortieth Fiscal Year, ending June 30, 1889.

ACCOUNTS.	Inventory, July 1, 1888.	Issues During Year.	Total.	Inventory, July 1, 1889.	Balance.
Salary		\$39,726 47	\$39,726 47		\$39,726 47
Expense		2,834 54	2,834 54		2,834 54
Hospital Department	\$1,114 92	1,122 47	2,237 39	\$916 90	1,320 49
Discharged prisoners		896 55	896 55		896 55
Warden's house		1,359 18	1,359 18	35 12	1,324 06
Officers and guards' mess	514 28	9,693 58	10,207 86	545 96	9,661 90
Prisoners' mess	1,550 90	22,978 06	24,528 96	2,093 94	22,435 02
Commissary Department	521 60	303 11	824 71	528 60	296 11
Capt. of Guards' Department	11,912 73	2,123 12	14,035 85	12,259 09	1,776 76
Turnkey's Department	6,684 31	11,882 15	18,566 46	8,424 49	10,141 97
Engineer's Department	2,314 90	4,603 92	6,918 82	4,441 99	2,476 83
Laundry Department	842 90	780 49	1,623 39	910 68	712 71
Stock Department	4,539 35	3,161 44	7,700 79	5,715 72	1,985 07
Warden's office	954 74	498 23	1,452 97	1,405 93	47 04
Clerk's office	252 40	92 48	344 88	249 40	.95 48
Permanent furniture	4,230 34	435 82	4,666 16	4,664 38	1 78
General repairs		537 75	537 75		537 75
Railroad material	2,212 73	326 51	2,539 24	2,422 41	116 83
Light Department	2,226 52	2,485 74	4,712 26	2,293 57	2,418 69
Farm Department	3,800 00	2,253 62	6,053 62	2,153 70	3,899 92
Profit and loss (Commissary)		127 68	127 68		127 68
Prison Directors' account		284 70	284 70		284 70
Escaped prisoners		296 85	296 85		296 85
Insane prisoners (transportation)		35 50	35 50		35 50
Transportation prisoners		125 55	125 55		125 55
Totals	\$43,672 62	\$108,965 51	\$152,638 13	\$49,061 88	\$103,576 25
Receipts from farm					6,131 61
Net expenses of maintenance					\$97,445 09

Average number of prisoners, 488.3; cost per capita per diem, 54.6 cents.

TABLE No. 4.

Earnings of the State Prison at Folsom for the Fortieth Fiscal Year, ending June 30, 1889.

	QUARRY.		FARM.		LABOR.	Earnings Fortieth Fiscal Year.
	Dr.	Cr.	Dr.	Cr.	Cr.	
Receipts during fortieth fiscal year		\$3,861 22		\$6,828 84	\$93 50	
Stock on hand, inventory July 1, 1889		7,348 92		2,153 70		
Issues during fortieth fiscal year	\$3,399 47		\$2,951 30			
Stock on hand, inventory July 1, 1888	6,560 38		3,800 00			
Earnings fortieth fiscal year	1,250 29		2,231 24		93 50	\$3,575 03
Totals	\$11,210 14	\$11,210 14	\$8,982 54	\$8,982 54	\$93 50	\$3,575 03
Net earnings fortieth fiscal year						\$3,575 03

TABLE No. 5.
Assets and Liabilities.

<i>Assets.</i>		
Warden's office	\$1,405 93	
Clerk's office	249 40	
Real estate	15,000 00	
Permanent furniture	4,664 38	
Warden's house	35 12	
Officers and guards' mess	545 96	
Prisoners' mess	2,093 94	
Farm	2,153 70	
Stock	5,715 72	
Quarry	7,348 92	
Hospital	916 90	
Commissary	528 60	
Merchandise (supplies on hand)	6,588 26	
Railroad material	2,422 41	
Laundry	910 68	
Light	2,293 57	
Engineer	4,441 99	
Turnkey	8,424 49	
Captain of Guards	12,259 09	
Prison improvement	412,402 56	
Wooden buildings	10,640 32	
Cash on hand	1,532 11	
State Treasury (prison earnings)	11,359 66	
Due from sundry debtors	4,918 56	
Due from United States of America	106 00	
		\$518,958 27
<i>Liabilities.</i>		
Unpaid bills, May	\$5,731 52	
Unpaid bills, June	10,486 83	
Unpaid officers and guards' salaries, June	3,319 15	
		19,537 50
Excess of assets		\$499,420 77

TABLE No. 6.
Fire Loss Account.

Farm—Hay	\$327 68	
Two iron-beam plows @ \$10	20 00	
One single plow	12 00	
One hay press	300 00	
One hay cutter	5 00	
Six hay forks	3 00	
One cow	20 00	
Two calves	10 00	
Stock—One bay filly	15 00	
One saddle horse, four years old	50 00	
One horse, "Billy the Bum"	20 00	
One 2-year old colt, "Molly"	25 00	
One 3-year old colt, "Kate"	35 00	
One dump cart	30 00	
Capt. Guards—One sawmill and contents	1,240 00	
One carpenter shop and contents	445 40	
One tin shop and contents	483 17	
One paint shop and contents	305 56	
One plumber shop and contents	268 20	
One photograph gallery and contents	479 20	
Wooden buildings—One woodshed, 25½x41 feet	250 00	
One tin and carpenter shop, 44½x36½ feet	200 00	
One barn, shed, and tank	370 00	
Merchandise—Two hundred and thirteen thousand four hundred and sixty-four pounds of hay @ \$10 per ton	1,067 32	
		\$5,981 53
By insurance		2,000 00
Net loss		\$3,981 53

TABLE No. 7.

	TRIAL BALANCE, JUNE 30, 1889.		STATE PRISON AT FOLSOM.		TRIAL BALANCE, JULY 1, 1889.	
	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.
Cash.....	\$1,532 11	\$93 50			\$1,532 11	
Labor.....	580 00					
Power-house appropriation.....	39,726 47		\$39,726 47		580 00	
Salary.....	6,098 63		6,098 63			
Quarry.....		387,461 00		387,461 00	7,348 92	
California State Prison at Folsom.....	2,834 54		2,834 54			\$499,420 77
Expense.....		210,075 68		210,075 68		
General appropriation account.....	2,237 39		2,237 39			
Hospital Department.....	10,640 32		10,640 32		916 90	
Wooden buildings.....	896 55		896 55		10,640 32	
Discharged prisoners.....						
Warden's house.....	1,359 18		1,359 18		35 12	
Officers and guards' mess.....	10,207 86		10,207 86		545 96	
Prisoners' mess.....	24,528 96		24,528 96		2,093 94	
Commissary Department.....	824 71		824 71		528 60	
Captain of Guards' Department.....	14,035 85		14,035 85		12,259 09	
Turnkey's Department.....	18,566 46		18,566 46		8,424 49	
Engineer's Department.....	6,918 82		6,918 82		4,441 99	
Laundry Department.....	1,623 39		1,623 39		910 68	
Stock Department.....	7,700 79		7,700 79		5,715 72	
Warden's office.....	1,452 97		1,452 97		1,405 93	
Clerk's office.....	344 88		344 88		249 40	
Permanent furniture.....	4,666 16		4,666 16		4,664 38	
Prison improvement.....	410,398 90		410,398 90		412,402 56	
General repairs.....	537 75		537 75			
Railroad material.....	2,539 24		2,539 24		2,422 41	
Light Department.....	4,712 26		4,712 26		2,293 57	
State Treasury.....	11,359 66				11,359 66	
Farm Department.....		77 54		77 54	2,153 70	
Real estate.....	15,000 00		15,000 00		15,000 00	
Merchandise.....	6,588 26		6,588 26		6,588 26	
Profit and loss (Commissary).....	127 68		127 68			
Prison Directors' account.....	284 70		284 70			
Escaped prisoners.....	296 85		296 85			
Transportation insane prisoners.....	35 50		35 50			

Transportation prisoners	125 55			125 55			
Loss account	4,018 27			4,018 27			
Salaries (power-house appropriation)		580 00					580 00
Board State Capitol Commissioners	336 37			336 37			
Normal School (Chico)	1,041 30			1,041 30			
J. W. Reeves	200 00			200 00			
Folsom Water Power Company	254 11			254 11			
United States of America	106 00			106 00			
M. J. Kelly	2,087 84			2,087 84			
Dominican Brothers' Church	979 94			979 94			
James F. Sharkey	19 00			19 00			
Sundry creditors (May bills)		5,731 52					5,731 52
Sundry creditors (June bills)		10,486 83					10,486 83
Officers and guards' salaries for June		3,319 15					3,319 15
Inventory State Prison at Folsom, July 1, 1889			501,041 94				
Balance to credit State Prison at Folsom			499,420 77				
Totals	\$617,825 22	\$617,825 22	\$1,098,749 66	\$1,098,749 66	\$519,538 27	\$519,538 27	

TABLE No. 8.

Financial Condition of the State Prison at Folsom, June 30, 1889.

Amount of appropriation for fortieth fiscal year.....		\$125,000 00
Amount of appropriation drawn to June 30, 1889.....	\$96,451 96	
Amount of unpaid supply and expense bills for May and June, 1889.....	16,218 35	
Amount of salary payroll for June, 1889.....	3,319 15	115,989 46
Balance of appropriation, after paying all indebtedness, fortieth fiscal year.....		\$9,010 54
Available from appropriation for the thirty-ninth fiscal year.....		11,376 28
Amount in State Prison Fund, June 30, 1889.....		11,359 66
Amount due from sundry debtors.....		5,024 56
Cash on hand June 30, 1889.....		1,532 11
Total amount available assets, in excess of liabilities, June 30, 1889.....		\$38,303 15
*Amount reverting to State Treasury, thirty-ninth fiscal year appropriation.....	\$11,376 28	
*Amount reverting to State Treasury, fortieth fiscal year appro- priation.....	9,010 54	20,386 82
Amount available assets, other than appropriations, for forty- first fiscal year.....		\$17,916 33

* Of the above table, the sum of \$20,386 82, being an unexpended balance from the appropriation for the thirty-ninth and fortieth fiscal years, reverts into the General Fund of the State Treasury by law.

DEPUTY WARDEN'S REPORT.

STATE PRISON AT FOLSOM, CALIFORNIA, }
July 4, 1889. }

Hon. CHARLES AULL, Warden State Prison at Folsom:

DEAR SIR: I herewith beg to submit my report, in tabular form, for the fiscal year ending June 30, 1889.

Respectfully,

W. H. ROBINSON,
Deputy Warden.

TABLE No. 1.

Prison Account from 1881 to June 30, 1889.

	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	Total.
Prisoners received by order of Court	96	85	131	217	230	225	150	152	241	1,527
Pardons revoked.....			1							1
Escapes recaptured.....	2	5		3	1	3	3	3	3	23
Returned from Insane Asylum.....								1	1	2
Returned convict witnesses.....	2	1	9	4	6	2	4	2	5	35
United States prisoners received.....					1		1	1	1	4
Returned by order of Court.....			2	2	2	1				7
Received by transfer from San Quentin.....	253	60		50	2	4	1	7	11	388
Total received.....	353	151	143	276	242	235	159	66	262	1,987
Discharged per Act.....	36	114	93	75	48	42	69	80	23	580
Discharged per Act and restored.....					32	71	80	88	83	354
Pardoned by Governor.....	1	3	11	11	11	1	8	4	9	59
Discharged by commutation.....		1	8	3	22	16	13	1	1	65
Discharged by order of Court.....		2								2
Escaped.....	6	4	4	6	4	2	2	2	3	33
Died and killed.....	3	6	13	7	7	7	15	7	6	71
Killed while attempting to escape.....	1	1			1					3
Sent to Insane Asylum.....		1	2	2		2		7	3	17
Taken out as witness.....	2	2	9	4	6	2	4	2	5	36
Taken out for new trial.....	1	4	1	2	5	4	2		1	20
Suicided.....	1			1	1	2	1			6
Taken out for trial on new charge.....				2	1					3
Taken out on writ of probable cause.....				1	2					3
Taken out on writ of habeas corpus.....			2	3	1			1		7
Taken out for trial on additional charge.....	1									1
Taken out on certificate of probable cause.....								1		1
Taken out by order of Court.....	3									3
Conditionally pardoned.....	1		1	1	3					6
Killed by fellow-convict.....		1								1
Transferred to San Quentin.....					3	3	4	157		167
Total discharged.....	56	139	144	118	147	152	198	350	134	1,438

TABLE No. 2.

Recapitulation of Received and Discharged Prisoners, from July 1, 1888, to June 30, 1889.

MONTH.	By Commitment.	Witness Returned.	Escape Returned.	Returned from In- sane Asylum.	Transferred from San Quentin.	Total Received.
1888—July	16				10	26
August	18	2	1		1	22
September	19					19
October	6	1	1			8
November	25					25
December	27					27
1889—January	30			1		31
February	26					26
March	24	1				25
April	20					20
May	14					14
June	17	1	1			19
Totals	242	5	3	1	11	262

MONTH.	Discharged per Act and Restored.	Discharged per Act	Taken Out for New Trial.	Taken Out as Witness.	Committed to In- sane Asylum.	Pardoned by Gov- ernor.	Died.	Escaped.	Committed by Gov- ernor.	Total Discharged.
1888—July	5	5		1	1	1	1			14
August	5	2		1				2		10
September	7	1					2		1	11
October	10	3		1			1	1		16
November	13									13
December	9	1				1				11
1889—January	4	3		1		2	1			11
February	4	3	1		1	2				11
March	5									5
April	7	3			1					11
May	9					3	1			13
June	5	2		1						8
Totals	83	23	1	5	3	9	6	3	1	134

TABLE No. 2—Continued.

Number of Prisoners on hand last day of each Month for Fiscal Year ending June 30, 1889.

	MONTH.	Number.
1888—	July	433
	August	445
	September	453
	October	445
	November	457
	December	473
1889—	January	493
	February	508
	March	528
	April	537
	May	538
	June	549
Daily average first half fiscal year		451.0
Daily average second half fiscal year		525.5
Daily average for fiscal year		488.3

TABLE No. 3.

Nativity of Prisoners.

NATIVITY.	Number.	Per Cent.	NATIVITY.	Number.	Per Cent.
<i>United States.</i>			<i>Foreign.</i>		
Alabama	1	.18	Austria	3	.54
California	108	20.00	Australia	2	.36
Colorado	3	.54	Azore Islands	1	.18
Connecticut	5	.90	Bavaria	1	.18
Dakota	1	.18	Canada	6	1.09
District of Columbia	1	.18	Chili	1	.18
Florida	1	.18	China	37	6.73
Illinois	17	3.09	Cuba	1	.18
Indiana	5	.90	Denmark	2	.36
Indian Territory	1	.18	England	18	3.27
Iowa	7	1.27	France	11	2.00
Kansas	1	.18	Greece	1	.18
Kentucky	8	1.45	Germany	30	5.44
Louisiana	4	.72	Holland	1	.18
Maine	7	1.27	Ireland	39	7.10
Maryland	8	1.45	Italy	4	.72
Massachusetts	18	3.27	Japan	1	.18
Minnesota	1	.18	Mexico	16	2.91
Mississippi	1	.18	Nova Scotia	1	.18
Michigan	7	1.27	Poland	1	.18
Missouri	23	4.18	Portugal	2	.36
Nevada	1	.18	Russia	4	.72
New York	47	8.56	Sweden and Norway	12	2.18
Nebraska	1	.18	South America	1	.18
New Jersey	4	.72	Scotland	7	1.27
Ohio	12	2.18	Sandwich Islands	1	.18
Oregon	1	.18	Switzerland	1	.18
Pennsylvania	22	4.00	Tasmania	1	.18
Rhode Island	2	.36	Tahiti	1	.18
Tennessee	2	.36	Turkey	1	.18
Texas	1	.18	Wales	2	.36
Vermont	1	.18	West Indies	2	.36
Virginia	5	.90			
Washington Territory	1	.18			
West Virginia	2	.36			
Wisconsin	7	1.27	Totals	549	100.00

TABLE No. 4.

Classification of Crime.

CRIME.	Number.	CRIME.	Number.
Arson	1	Desertion and theft	1
Arson, first degree	1	Embezzlement	2
Arson, second degree	5	Forgery	16
Assault to murder	16	Felony	12
Assault to murder and prior	2	Grand larceny	82
Assault to rape	6	Grand larceny and prior	14
Assault to rob	3	Injuring public jail	1
Assault to rob and prior	1	Infamous crime against nature	1
Assault with deadly weapon	14	Manslaughter	20
Assault with deadly weapon and prior	1	Murder	7
Attempted burglary	4	Murder, first degree	37
Accessory to burglary	1	Murder, second degree	22
Attempted grand larceny	1	Making and passing a fictitious check	1
Attempt to commit infamous crime against nature	4	Perjury	3
Burglary	18	Petit larceny and prior	10
Burglary, first degree	102	Rape	7
Burglary, second degree	73	Robbery	55
Bigamy	1	Receiving stolen property	3
Crime against nature	1	Total	549

TABLE No. 5.

Terms of Imprisonment.

TERM.	Number.	TERM.	Number.
Life	51	Eighteen years	4
One year	36	Twenty years	15
One and one quarter years	4	Twenty-two years	2
One and one half years	8	Twenty-five years	7
Two years	56	Twenty-eight years	1
Two and one quarter years	1	Twenty-nine years	1
Two and one half years	2	Thirty years	1
Three years	34	Thirty-four years	1
Three and one quarter years	1	Thirty-five years	1
Three and one half years	7	Forty years	2
Four years	38	Forty-two years	1
Five years	58	Fifty years	3
Five years and \$1,000 fine	1	Fifty-five years	1
Six years	17	Sixty years	1
Seven years	20	Seventy-three years	1
Eight years	32	Total	549
Nine years	7		
Nine and eleven twelfths years	1	Prisoners serving first term	403
Ten years	73	Prisoners serving second term	107
Ten years and \$1,000 fine	1	Prisoners serving third term	17
Eleven years	2	Prisoners serving fourth term	11
Twelve years	14	Prisoners serving fifth term	7
Thirteen years	2	Prisoners serving sixth term	2
Fourteen years	14	Prisoners serving seventh term	2
Fifteen years	23	Total	549
Sixteen years	3		
Seventeen years	1		

TABLE No. 5—Continued.

Educational Abilities of Prisoners.

Read and write	456
Read and cannot write	14
Write and cannot read	2
Neither read nor write	77
Total	549

TABLE No. 6.

Age of Prisoners.

AGE.	Number.	AGE.	Number.
Fifteen years	1	Forty-two years	5
Sixteen years	2	Forty-three years	10
Seventeen years	8	Forty-four years	7
Eighteen years	9	Forty-five years	11
Nineteen years	20	Forty-six years	12
Twenty years	26	Forty-seven years	2
Twenty-one years	26	Forty-eight years	5
Twenty-two years	20	Fifty years	7
Twenty-three years	21	Fifty-one years	3
Twenty-four years	16	Fifty-two years	5
Twenty-five years	23	Fifty-three years	6
Twenty-six years	27	Fifty-four years	5
Twenty-seven years	26	Fifty-five years	2
Twenty-eight years	27	Fifty-six years	2
Twenty-nine years	20	Fifty-seven years	1
Thirty years	27	Fifty-eight years	3
Thirty-one years	19	Fifty-nine years	2
Thirty-two years	17	Sixty years	2
Thirty-three years	11	Sixty-two years	2
Thirty-four years	21	Sixty-four years	2
Thirty-five years	16	Sixty-five years	2
Thirty-six years	12	Sixty-six years	1
Thirty-seven years	11	Sixty-seven years	1
Thirty-eight years	10	Sixty-eight years	1
Thirty-nine years	14	Unknown age	1
Forty years	15		
Forty-one years	4	Total	549

TABLE No. 7.

Number of Prisoners from Each County.

COUNTY.	Number.	Per Cent.	COUNTY.	Number.	Per Cent.
Alameda.....	34	6.20	San Joaquin	20	3.64
Alpine.....	1	.18	San Luis Obispo	6	1.09
Amador.....	4	.73	San Mateo.....	5	.91
Butte.....	14	2.55	Santa Barbara.....	9	1.64
Calaveras.....	4	.73	Santa Clara.....	16	2.91
Colusa.....	12	2.18	Santa Cruz.....	5	.91
Contra Costa.....	2	.37	Shasta.....	5	.91
El Dorado.....	7	1.27	Sierra.....	3	.55
Fresno.....	12	2.18	Siskiyou.....	6	1.09
Inyo.....	1	.18	Solano.....	9	1.64
Kern.....	1	.18	Sonoma.....	3	.55
Lake.....	1	.18	Stanislaus.....	8	1.46
Los Angeles.....	38	6.92	Sutter.....	2	.37
Marin.....	1	.18	Tehama.....	6	1.09
Mariposa.....	5	.91	Trinity.....	3	.55
Mendocino.....	9	1.64	Tulare.....	1	.18
Merced.....	5	.91	Tuolumne.....	2	.37
Modoc.....	2	.37	Ventura.....	3	.55
Mono.....	2	.37	Yolo.....	12	2.18
Monterey.....	3	.55	Yuba.....	9	1.64
Napa.....	3	.55	United States Courts:		
Nevada.....	7	1.27	Northern District of Cal-		
Placer.....	2	.37	ifornia.....	3	.55
Sacramento.....	58	10.56	Southern District of Cal-		
San Benito.....	1	.18	ifornia.....	1	.18
San Bernardino.....	16	2.91			
San Diego.....	3	.55	Totals.....	549	100.00
San Francisco.....	164	29.87			

TABLE No. 8.

Occupation of Prisoners when Received.

OCCUPATION.	Number.	OCCUPATION.	Number.
Actor	2	Machinist	7
Baker	8	Millwright	1
Barber	7	Miner	20
Barkeeper	3	Molder	4
Blacksmith	11	Morocco dresser	1
Boatman	3	Packer	1
Book agent	1	Painter	16
Bookkeeper	5	Pastry cook	1
Boilermaker	2	Pipemaker	1
Brakeman	1	Plasterer	2
Brass polisher	1	Plumber	7
Brewer	1	Porter	1
Broommaker	1	Preacher	1
Bricklayer	3	Printer	5
Bridge builder	1	Railroadman	1
Buttonmaker	1	Sailor	19
Butcher	4	Sailmaker	2
Carpenter	13	Salesman	1
Cabinetmaker	5	Sawyer	1
Chairmaker	1	Saddler	2
Civil engineer	1	Shoemaker	13
Cigarmaker	2	Soldier	2
Clerk	5	Spikeman	1
Cook	24	Stableman	1
Copyist	1	Stonecutter	3
Currier	1	Storekeeper	1
Dairyman	1	Surveyor	1
Druggist	1	Tailor	10
Engineer	3	Teamster	8
Farmer	14	Tinner	4
Farm laborer	4	Tool dresser	1
Fireman	1	Turner	1
Fishmonger	1	Valet	1
Gasfitter	1	Vaquero	3
Hackman	1	Waiter	34
Harnessmaker	4	Weaver	2
Horseshoer	1	Wireworker	1
Hostler	6	Woodcarver	1
Interpreter	1	Woodchopper	2
Journalist	2	No occupation	1
Laborer	203		
Laundryman	12	Total	549

TABLE No. 9.

Showing the Number of Convicts assigned to the various Departments, etc., of the Prison at the close of the Fiscal Year ending June 30, 1889.

DEPARTMENT.	Number.	DEPARTMENT.	Number.
Ranch.....	16	Stable.....	5
Permanent improvements.....	3	Harness shop.....	1
Laundry.....	11	Carpenter shop.....	8
General kitchen.....	30	Tin shop.....	4
Bakery.....	4	Barber shop.....	2
Officers' dining-room.....	8	Plumber shop.....	1
House servants.....	8	Paint shop.....	2
Chicken ranch.....	1	Shoe shop.....	3
Whitewashers.....	4	Tailor shop.....	5
Cell tenders.....	10	Photographer.....	1
Gate tenders.....	3	Captain of Guards' office.....	2
Library.....	1	Deputy Warden's office.....	2
Commissary.....	5	Clerk's office.....	1
Gas house.....	1	Patients in hospital.....	4
General laborers.....	1	Daily excuses.....	7
Dairy.....	1	Cripples, etc.....	8
Lamp room.....	2	Unassigned.....	2
Hospital nurses.....	3	Sweepers.....	1
Sawmill.....	2	Engineers.....	3
Scavengers.....	4	Canal.....	352
Vegetable garden.....	6		
Flower garden.....	11	Total.....	549

TABLE No. 9—Continued.

Employment and Labor Report for the Fiscal Year Ending June 30, 1889.

NATURE OF LABOR.	Days Labor.	NATURE OF LABOR.	Days Labor.
Quarry Department.....	497	Barber shop.....	705
Ranch.....	3,299	Plumber shop.....	581
Permanent improvements.....	2,104	Paint shop.....	738
Laundry Department.....	3,791	Shoe shop.....	1,405
General kitchen.....	10,560	Tailor shop.....	1,867
Bakery.....	1,178	Turning shop.....	138
Officers' dining-room.....	2,744	Photographers.....	316
House servants.....	2,606	Woodchoppers.....	31
Chicken ranch.....	375	Captain of Guards' office.....	381
Whitewashers.....	1,338	Deputy Warden's office.....	1,047
Cell tenders.....	4,007	Clerk's office.....	364
Gate tenders.....	1,380	Sweepers.....	1,000
Library.....	358	Engineers.....	1,158
Commissary Department.....	1,935	Chico Normal School contract.....	743
Gas house.....	409	Folsom Water Power Company.....	227
Carpenter shop.....	1,243	Canal.....	91,570
General laborers.....	369		
Dairy.....	413	Total days labor for year.....	154,802
Lamp room.....	734		
Hospital nurses.....	753	Lost Labor.	
Sawmill.....	1,218	Patients in hospital.....	672
Scavengers.....	1,543	Daily excuses.....	2,082
Vegetable garden.....	1,811	Cripples, imbeciles, etc.....	1,832
Flower garden.....	3,418	Unassigned.....	1,018
Stable.....	2,948	Solitary.....	547
Harness shop.....	329		
Car shop.....	298	Total days lost labor for year.....	6,151
Tin shop.....	843		

TABLE No. 10.

Clothing Account, July 1, 1888, to June 30, 1889—Clothing, Shoes, etc., Manufactured.

MONTH.	Woolen Pants	Woolen Shirts	Hickory Shirts	Drawers	Undershirts	Shoes	Shoes Repaired	Boots
1888—July	136	119	48	47	61	98	56	-----
August	109	112	61	54	89	98	60	-----
September	226	102	2	32	34	112	52	1
October	203	83	30	177	178	169	48	5
November	38	131	2	198	204	142	35	4
December	123	52	14	220	218	132	54	4
1889—January	159	133	10	197	186	136	49	5
February	159	149	8	152	156	94	53	1
March	144	132	14	115	108	144	23	1
April	136	85	6	117	132	91	59	1
May	101	61	93	56	74	70	47	2
June	191	138	28	-----	-----	80	71	1
Totals	1,725	1,297	316	1,365	1,440	1,366	607	25

Clothing, Shoes, etc., Issued.

MONTH.	Woolen Pants	Woolen Shirts	Hickory Shirts	Drawers	Undershirts	Wool Hats	Straw Hats	Socks
1888—July	138	115	48	49	52	51	32	801
August	52	75	31	55	103	38	41	63
September	223	109	25	28	31	65	2	65
October	100	83	24	169	164	82	-----	43
November	120	106	7	192	184	89	-----	106
December	128	109	10	222	215	81	-----	79
1889—January	124	107	20	187	185	79	-----	893
February	128	98	4	114	111	52	-----	56
March	132	87	16	89	87	54	-----	94
April	141	100	10	109	113	85	5	57
May	137	81	70	100	104	81	54	67
June	154	94	23	47	49	64	58	1,020
Totals	1,577	1,164	288	1,361	1,398	821	192	3,344

MONTH.	Shoes	Shoes Repaired	Boots	Oil Coats	Rubber Boots	CITIZENS' CLOTHES.		
						Pants	Coats	Vests
1888—July	120	56	-----	-----	-----	12	15	13
August	78	60	-----	-----	-----	6	6	6
September	103	52	1	-----	24	8	9	9
October	92	48	5	-----	-----	13	10	10
November	90	35	4	-----	-----	12	13	13
December	97	54	4	-----	-----	11	10	10
1889—January	73	49	4	24	-----	9	8	8
February	85	53	2	-----	-----	9	7	8
March	91	23	1	-----	-----	6	7	8
April	140	59	1	-----	-----	11	9	9
May	110	47	2	-----	-----	11	10	9
June	119	71	1	-----	-----	6	4	4
Totals	1,198	607	25	24	24	114	108	107

REPORT OF PHYSICIAN.

STATE PRISON AT FOLSOM, June 30, 1889.

CHAS. AULL, *Warden*:

SIR: I have the honor to hand you my report of the Medical Department of this prison for the fiscal year ending June 30, 1889.

Since my last report the health of the prisoners has been unusually good; I have had only six deaths to record, three of which died from violence—one received a gunshot wound in attempting to escape, from which he died; one received injuries in jumping from a train, from which he never recovered; and one other was killed by the fall of a derrick while at work on the canal—two died of phthisis pulmonalis, and one from septicemia, making our death rate 1.22 per cent of the prisoners confined.

The diet and clothing of the prisoners have been ample and of good quality; the sanitary rules rigidly enforced. These facts, including a good climate, have been the cause of our low death rate. Formerly Folsom was considered a very unhealthy locality; there were a number of large reservoirs located in its vicinity; now that hydraulic mining has been abandoned they have been discontinued, and the result has been to make this one of the healthiest places in the State, as our death rate will show.

A great source of trouble in the management of prisoners heretofore has been the opium habit; but I am able to state that for the past year I have been troubled but very little. There has been a number come here confirmed users of the drug; in a short time after their arrival they were cured, and now are as good and faithful laborers as we have.

There are a number of minor improvements that I could suggest, but they can be postponed until we have more time.

I thank you and your efficient corps of officers for the many acts of kindness shown.

I am, very respectfully, your obedient servant,

THOS. B. EAGLE,
Physician.

	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Total.
Calls on Physician.....	880	1,113	1,037	1,052	4,082
Daily average.....	10	12	11	12	-----
Men excused from labor.....	482	529	481	567	2,058
Daily average.....	5	6	5	6	-----
Patients admitted to hospital.....	7	13	12	22	54
Patients discharged from hospital.....	4	10	12	18	44
Patients remaining in hospital.....	-----	-----	-----	4	4
Patients died in hospital.....	3	1	-----	2	6

NAME.	Nativity.	Disease.	Date of Death.
Wright.....	Iowa.....	Carbuncle.....	July 5, 1888.
Sullivan.....	California.....	Phthisis.....	September 30, 1888.
Powers.....	Pennsylvania.....	Phthisis.....	September 12, 1888.
Vickery*.....	Maine.....	Gunshot wounds.....	October 14, 1888.
Morey†.....	Iowa.....	Pneumonia.....	January 11, 1889.
Smith‡.....	Holland.....	-----	May 18, 1889.

* Vickery died of gunshot wounds received in attempting to escape.

† Morey died of traumatic pneumonia received in attempting to escape from the Sheriff.

‡ Smith killed instantly by the fall of a derrick.

Patients Admitted to Hospital in Fiscal Year ending June 30, 1889.

NAME.	Disease.	Admitted.	Discharged.	Days in the Hospital	Date of Death.
Wright	Carbuncle	June 30, 1888.		6	July 5, 1888.
Hubbard	Rhus tox	July 13, 1888.	July 17, 1888.	4	
Sullivan	Phthisis	Aug. 15, 1888.		45	Sept. 30, 1888.
Pruett	Punctured wound	Aug. 18, 1888.	Aug. 22, 1888.	5	
Powers	Phthisis	Aug. 25, 1888.		18	Sept. 12, 1888.
Sanford	Insane	Sept. 20, 1888.	Sept. 21, 1888.	1	
Aleck	Malaria	Sept. 29, 1888.	Sept. 30, 1888.	1	
Foster	Contused wound	Oct. 12, 1888.	June 21, 1889.	251	
Campbell	Incised wound	Oct. 12, 1888.	Oct. 21, 1888.	9	
Vickery*	Gunshot wound	Oct. 14, 1888.			Oct. 14, 1888.
Foster		Oct. 23, 1888.	Oct. 30, 1888.	2	
La Boquet	Malaria	Oct. 29, 1888.	Nov. 4, 1888.	5	
McCarty	Contused wound	Nov. 5, 1888.	Nov. 9, 1888.	4	
Rooney	Erysipelas	Nov. 14, 1888.	Nov. 17, 1888.	3	
La Boquet	Malaria	Nov. 15, 1888.	Nov. 17, 1888.	2	
Videll	Contused wound	Nov. 23, 1888.	Dec. 5, 1888.	12	
Mullen	Punctured wound	Nov. 29, 1888.	Dec. 3, 1888.	4	
Taylor	Rheumatism	Dec. 5, 1888.	Dec. 21, 1888.	16	
Franklin	Vertigo	Dec. 20, 1888.	Dec. 22, 1888.	2	
Calzado	Contused wound	Dec. 27, 1888.	Jan. 5, 1889.	9	
Pratt	Neuralgia	Jan. 3, 1889.	Jan. 7, 1889.	4	
Morey†	Pneumonia	Jan. 5, 1889.		6	Jan. 11, 1889.
Donohue	Malaria	Jan. 9, 1889.	Jan. 14, 1889.	5	
Ansburo	Malaria	Jan. 24, 1889.	Jan. 26, 1889.	2	
Meza	Contused wound	Feb. 7, 1889.	Feb. 19, 1889.	12	
Kiernan	Cough	Feb. 13, 1889.	Feb. 16, 1889.	3	
Lyons	Nervous	Feb. 22, 1889.	Feb. 28, 1889.	6	
Milne	Felon	Feb. 23, 1889.	Mar. 2, 1889.	7	
Marsh	Influenza	Feb. 25, 1889.	Mar. 2, 1889.	5	
Gonzales	Influenza	Mar. 3, 1889.	Mar. 7, 1889.	4	
Schwartz	Influenza	Mar. 14, 1889.	Mar. 20, 1889.	6	
Franklin	Epilepsy	Mar. 17, 1889.	Mar. 20, 1889.	3	
Smith	Orchitis	Apr. 3, 1889.	Apr. 7, 1889.	4	
Rooney	Malaria	Apr. 3, 1889.	Apr. 9, 1889.	6	
Doane	Sciatica	Apr. 14, 1889.	Apr. 19, 1889.	5	
Ah Ling	Malaria	Apr. 14, 1889.	Apr. 17, 1889.	3	
Talbot	Sprained ankle	Apr. 14, 1889.	May 17, 1889.	34	
Miller	Contused wound	Apr. 20, 1889.	Apr. 24, 1889.	4	
Marrone	Malaria	Apr. 27, 1889.	Apr. 29, 1889.	2	
Case	Malaria	May 16, 1889.	May 16, 1889.	1	
Smith‡		May 18, 1889.			May 18, 1889.
Thompson	Malaria	May 30, 1889.	June 2, 1889.	3	
Harley	Pneumonia	May 30, 1889.			
Lundquist	Contused wound	May 30, 1889.	June 2, 1889.	3	
Loder	Dysentery	June 2, 1889.	June 4, 1889.	2	
Rivers	Dysentery	June 5, 1889.	June 13, 1889.	8	
Peterson	Pneumonia	June 14, 1889.			
Cotton	Rock in eye	June 14, 1889.	June 20, 1889.	6	
McDonald	Remittent fever	June 16, 1889.	June 19, 1889.	3	
Davis	Remittent fever	June 16, 1889.	June 20, 1889.	4	
Clark	Remittent fever	June 20, 1889.	June 23, 1889.	3	
Nelson	Cont. and lac. wou'd.	June 21, 1889.			
Davis	Remittent fever	June 22, 1889.			
Blummer	Dysentery	June 23, 1889.	June 27, 1889.	4	

Total number admitted to hospital, 54.

* Vickery died of gunshot wounds received in attempting to escape.

† Morey died of traumatic pneumonia, received in attempting to escape from Sheriff.

‡ Smith killed instantly by the fall of a derrick.

Calls on Physician.

DISEASE.	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Total.
Asthma		2			2
Bilious	45	59	43	50	197
Boils	11	41	54	35	141
Bronchitis		21	7		28
Carbuncle				5	5
Catarrh	14	10	25	14	63
Cholera morbus		4			4
Colic	29	39	28	48	144
Constipation	44	56	50	55	205
Coryza		9			9
Cough	84	168	126	60	438
Diarrhœa	61	41	36	114	252
Dysentery		6		15	21
Eczema	14	8			22
Erysipelas	3	11			14
Exostosis	8				8
Felons	31	17	19	24	91
Hemorrhoids	13	8	17	21	59
Hernia	15	19			34
Herpes	8				8
Indigestion	14	24	19	25	82
Influenza			77		77
Lumbago	9				9
Lupus	2		8	10	20
Malaria	184	162	61	145	552
Neuralgia	8	29	27	8	72
Odontalgia	7	6			13
Otorrhœa	7				7
Ozeana				4	4
Paralysis			8	6	14
Phthisis	10	17	17	25	69
Ptyalism		6			6
Rheumatism	35	39	55	38	167
Rhus tox	9			18	27
Rock in eye				9	9
Scrofula	16	21	14	16	67
Sprains	73	60	28	56	217
Syphilis secondary	23	8	19	8	58
Tonsilitis	4				4
Vertigo		2			2
Wounds, contused		110	203	175	488
Wounds, incised		12	20	7	39
Unclassified	99	98	76	61	334
Total					4,082





ELEVENTH ANNUAL REPORT

OF THE

STATE BOARD OF PRISON DIRECTORS

OF THE

STATE OF CALIFORNIA,

FOR THE

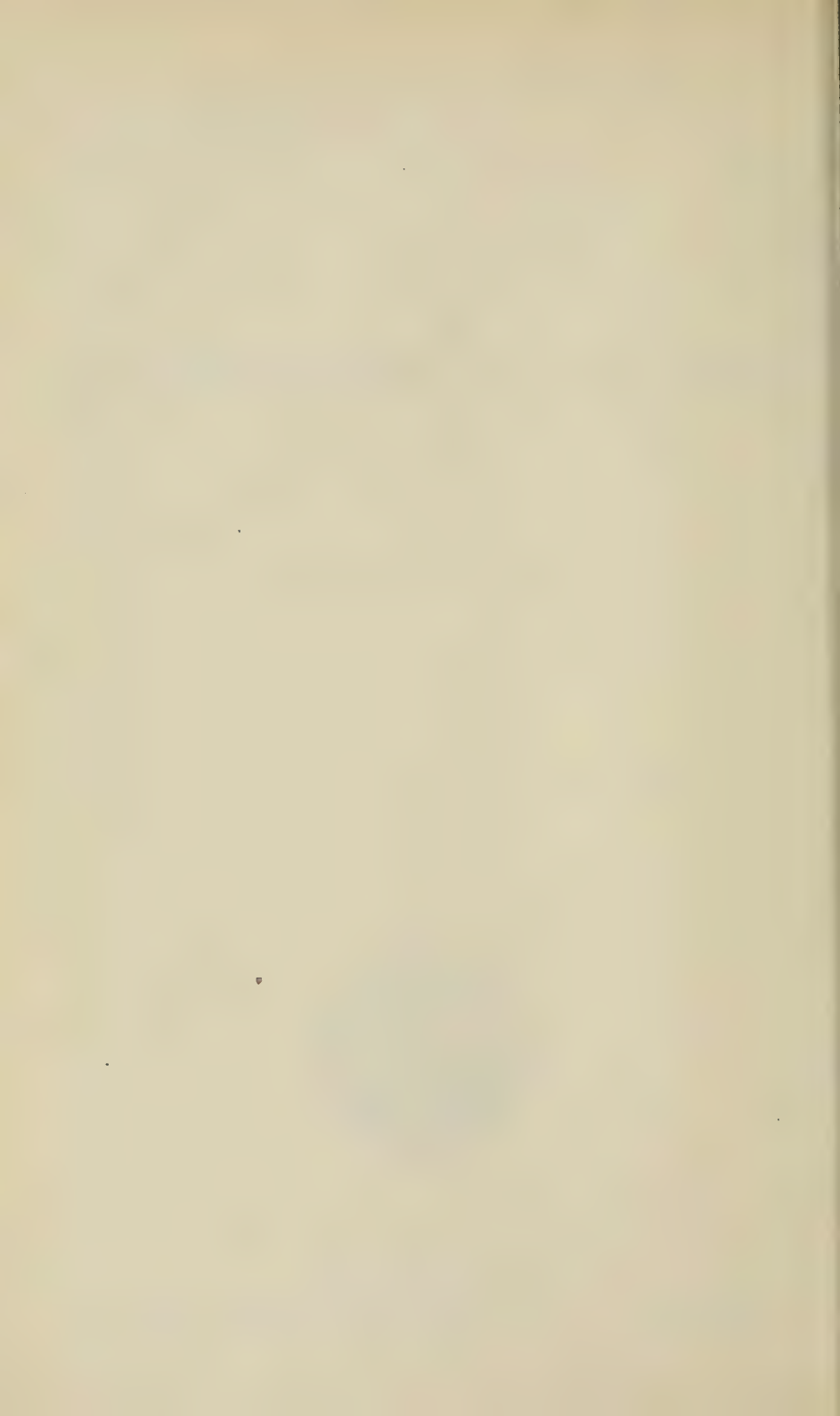
FORTIETH FISCAL YEAR, ENDING JUNE 30, 1890.



SACRAMENTO:

STATE OFFICE, : : : : : J. D. YOUNG, SUPT. STATE PRINTING.

1890.

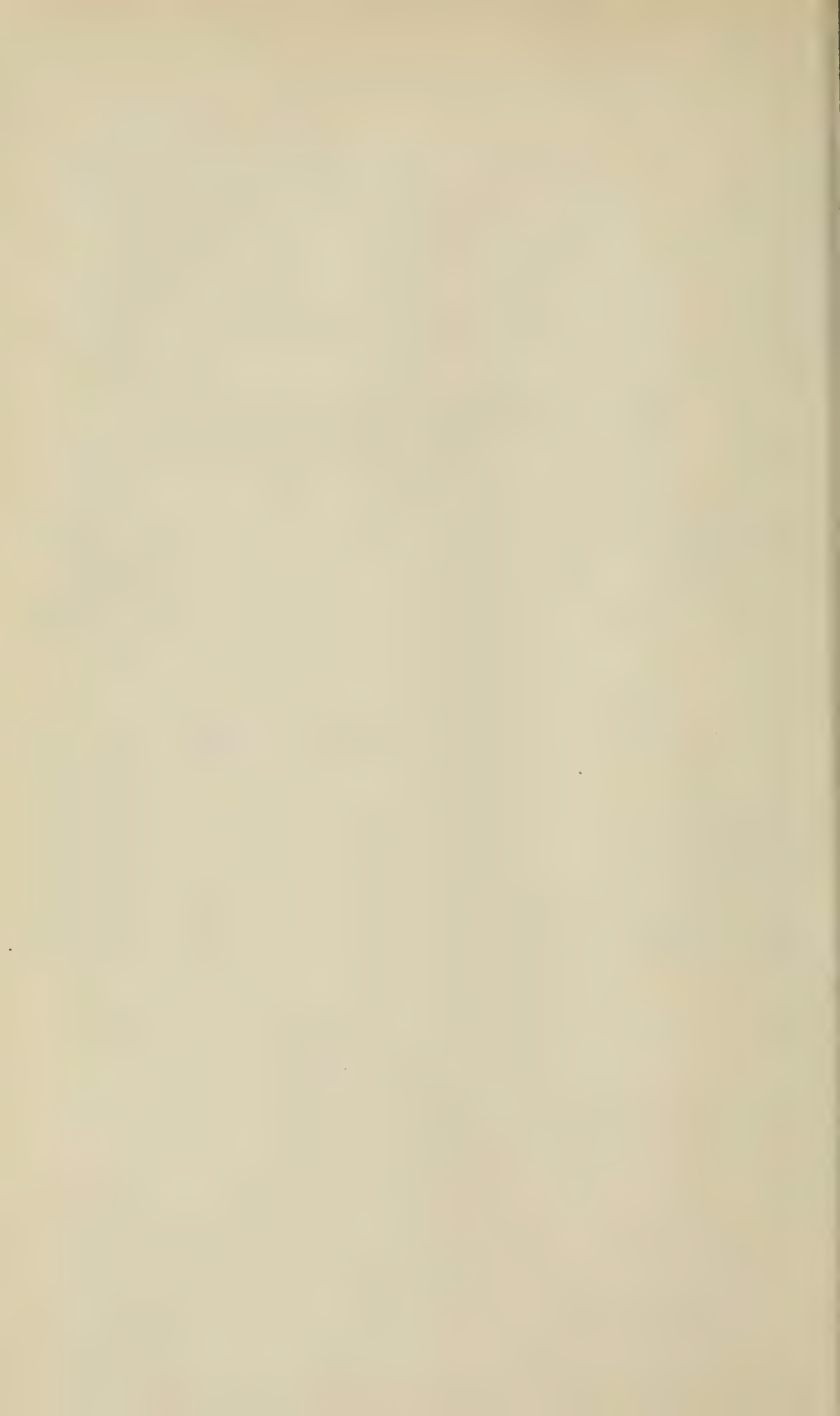


STATE BOARD OF PRISON DIRECTORS.

R. T. DEVLIN, President.....	Sacramento.
CHARLES SONNTAG.....	San Francisco.
E. J. DePUE.....	San Francisco.
JOSEPH CRAIG.....	Woodland.
P. REDDY.....	San Francisco.

OFFICERS OF THE SAN QUENTIN PRISON.

JOHN McCOMB.....	Warden.
J. V. ELLIS.....	Clerk.
BENJ. CHAMBERS.....	Deputy Warden.
B. DOUGHERTY.....	Turnkey.
E. A. REDDY.....	Captain of the Guard.
DR. F. C. DURANT.....	Physician.
JOHN McCOMB, JR.....	Warden's Secretary.



REPORT.

NOVEMBER 15, 1890.

To his Excellency R. W. WATERMAN, Governor of California:

In compliance with law the State Board of Prison Directors submit to you their annual report for the fiscal year ending June 30, 1890.

Reports have been prepared by the principal officers of the institutions under the superintendence of the Board, showing the management of these institutions for the last year, and they are appended to this report for fuller information. They also show what has been done under the various appropriations made at the last session of the Legislature.

In addition to the matter contained in the reports of the subordinate officers, there are several matters to which the Board desires specially to draw your attention.

1. It will be necessary for the Legislature to determine to what uses the power derived from the dam and canal at Folsom shall be put, and to make the necessary appropriations for the erection and equipment of such manufactories as in their judgment may best be carried on. We will not repeat the history of the building of the dam and canal, nor speak of the advantages that will be derived from the power at the command of the State. These matters are familiar to you. But inasmuch as the quantity of power belonging to the State will soon be capable of utilization, the question as to the manufacturing industries that shall be carried on at Folsom becomes an important one, and in its solution will arise two considerations—profit to the State, and non-injury to free labor. The Board have concluded it to be unnecessary to formulate plans for the building of manufactories, preferring to submit the facts to the Legislature.

2. It will be necessary to make an appropriation to complete the Preston School of Industry at Ione. The last Legislature made an appropriation of \$160,000 for the purchase of grounds, water power, and erection of buildings, maintenance, etc.

This sum was named on the supposition that the school would be erected at Folsom, where it could be built with convict labor, and where the material for construction would be free. When it was provided that the school should be located in Amador County, where it became necessary to purchase land, water, and building material, the amount of the appropriation was not increased. It would be a waste of words to speak of the necessity of the speedy completion of such an institution. California has been derelict in the duty she owed to the young offender, whose life was tending in the direction of vice. In both of our State Prisons are many boys who, instead of being subject to that reformatory influence exercised by an industrial school, are necessarily, under the congregate system followed in our prisons, learning from older and more experienced criminals the love and the art of crime.

3. The care of the criminal insane is a subject that deserves careful consideration. In reports in the past we have called attention to this matter, and finally the Legislature made an appropriation for this

purpose, and provided for the erection of a building at San Quentin. The Board called to their assistance Drs. Wilkinson and Hatch, Superintendents of State Insane Asylums, and they recommended that a building be erected outside of the prison inclosure, claiming that the health and mental condition of the inmates would be improved by placing such prisoners as became insane in prison in a structure removed some distance from the prison itself, and erected with a view to its use and benefit as an asylum for the infirm in mind, rather than as a prison, where security should be the main object. The adoption of these suggestions would call for an expenditure of more money than was available for the purpose, and hence the matter has remained *in statu quo*. Plans, however, have been prepared for utilizing a portion of the prison buildings for this purpose, but no action has been taken on them.

In this connection we deem it our duty to urge upon you, and through you the Legislature, to make suitable provision for the criminal insane, those who may become insane in prison, and those who may commit crime through insane impulses, and while they are legally guiltless, are unsafe to be at large, and who, if placed in an insane asylum would exercise a deleterious influence over the other inmates. Such an institution is in operation at Auburn, New York, and Illinois is building one at the State Prison at Chester.

For the purpose of showing the necessity of properly caring for the criminal insane, we subjoin the following extract from a report of Carlos F. McDonald, M.D., Medical Superintendent of the State Asylum for Insane Convicts, at New York:

From a somewhat extensive observation of several years, respectively, of the criminal and non-criminal insane, I am led to believe that the element of crime, when interwoven with insanity, exerts a modifying influence upon the mental manifestations of that disease, and that to this extent, in a large porportion of cases, the criminal insane, medically speaking, may be regarded as a distinct and separate class, the analogue of which is not found among the ordinary insane. They present certain characteristic mental peculiarities which experience in observing this class enables one to recognize as the indelible stamp of crime, and although the line of demarkation may not always be apparent to the casual observer, its existence, as a rule, can be discovered and demonstrated if time and facilities for careful observation be had.

In my experience with the criminal insane, now nearly five years, I have been struck with the frequency of cases in which there was an absence of expressed delusions, although the manner and conduct of the individual were clearly indicative of a delusional state. Comparing these individuals with their former selves, we find undoubted evidence of a departure from their normal mental state. They have become sullen, morose, and morbidly irritable. They rebel against the ordinary rules of discipline, and make unprovoked assaults upon those around them without apparent motive and without offering any explanation therefor. That they are suffering from impairment of bodily functions is shown by sleeplessness, loss of appetite, coated tongue, foul breath, constipation, a greasy condition of the skin, and a livid, puffy appearance of the extremities, indicating a relaxed condition of the blood vessels. They are generally coherent in conversation, do not complain of being ill, nor apply for medical treatment. They frequently continue in the performance of their allotted tasks in prison for months before the attention of those in daily contact with them is attracted to their mental disturbance. From this condition they either recover or gradually drift downward to complete dementia, with no outward exhibition of delirium or mental excitement to mark the course of their disease. The occurrence of acute, delirious mania, according to my observation, is exceptional among the criminal insane, melancholia and dementia, with an occasional case of sub-acute mania, being the predominant types of insanity observed here.

A certain proportion of cases, and usually those of hardened criminals, are characterized in their mental manifestations by the most pronounced vicious tendencies, their insanity apparently expressing itself in a marked exaggeration of the depravity and vice displayed by them prior to the onset of the disease. On the mental side this is substantially the only evidence of disease which these cases present. Physically, however, their condition is marked more or less by the signs of bodily impairment above referred to. Being known to the authorities as abandoned and depraved individuals, it is not surprising that their insanity is not recognized by casual observers when it expresses itself in the manner I have indicated.

We may readily admit such cases into the category of mental disease, without in any way countenancing the dogma that insanity and crime are convertible terms. The conduct of such cases, when first admitted to the asylum, is characterized by the most striking evidences of depravity.

They are profane and obscene in language; tear and destroy clothing, bedding, and furniture; strike, steal, lie, and soil themselves and their surroundings, apparently from mere wantonness. They sleep badly, and display the resistance to the efforts of sleep-producing remedies common to lunatics. They are generally alike indifferent to coercive measures and to comfort, and it is only by constant and persistent endeavor, firmly but kindly applied by those in immediate charge of them, that they can be trained into decent habits and deportment. From the foregoing, it might naturally be inferred that the successful management of the criminal insane would involve greater difficulties than are encountered in the care of the ordinary insane; and such was my belief in the earlier period of my experience with this class, but further observation and experience have served to convince me that, with facilities especially adapted to its needs, an asylum for the criminal insane can be conducted on the same general principles, and with as good results, except in the matter of cures, as are hospitals for the ordinary insane. Visitors passing through the wards of this asylum are struck by the marked absence of noise or disturbance of any kind, this being the usual condition night and day. They not infrequently ask to be shown "the violent cases," and "those you have to keep tied up in their cells," or in "straight jackets," and when informed that no mechanical restraint of any kind is used here; that we have no cells; that there is no "disturbed" ward; and that the patients they have seen are the worst cases we have, they are apt to look incredulous and doubting, apparently being unable to realize that criminal lunatics are controlled by kindly influences, and that order and quietude prevail among what they had supposed to be the most violent class of insane. The principal difficulties encountered in the management of this institution are the prevention of escapes and a propensity of homicidal patients to obtain and conceal articles for the purpose of using them as weapons of assault. To prevent these occurrences involves the exercise of constant care and vigilance.

Cases of simulated insanity are obviously of much more frequent occurrence here than in general asylums. They, of course, are troublesome while they remain with us, but detection is not difficult, and is immediately followed by a return to prison. If it were the rule, and generally so understood in the prisons, that a convict detected in an attempt to feign insanity should forfeit the commutation of sentence allowed him for good conduct, it would, I believe, render such attempt of rare occurrence.

Insane criminals, particularly of the convict class, in their efforts to escape, frequently display a wonderful combination of shrewdness, cunning, and ingenuity. Patients of both classes, who have committed crimes against the person, are more dangerous but less inclined to escape than those who have committed crimes against property.

And Dr. G. G. Tyrrell, in an address before the State Medical Society, in 1882, said:

The only remedy presented to us to obviate this manifest and glaring wrong to our fellow beings, who, although insane, are not criminal, and to those who are both criminal and insane, is a separate and special provision for the care and custody of the criminal insane, and this in the erection by the State of a suitable asylum constituted and adapted to this special purpose, since the inmates intended for its occupancy, although insane, are still dangerous outlaws and criminals, retaining for the most part all their criminal characteristics and vicious proclivities.

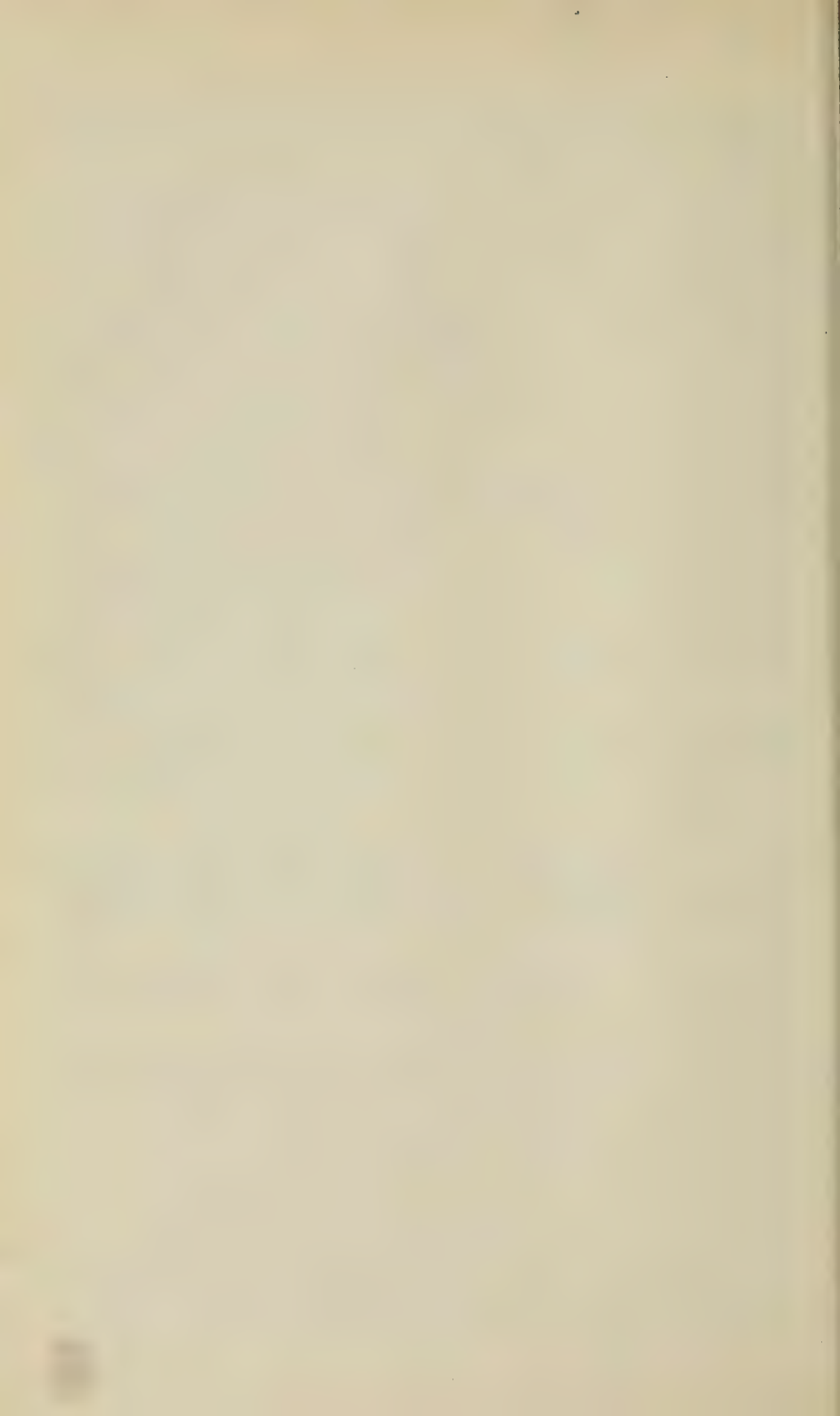
4. The prison buildings at San Quentin were erected many years ago, and are built in a manner that would not at the present day be tolerated.

It would seem the part of wisdom to rebuild some of the old structures, as to put them in a proper state of repair would be as expensive as rebuilding.

In conclusion, we desire to acknowledge the many courtesies extended by you.

Respectfully submitted.

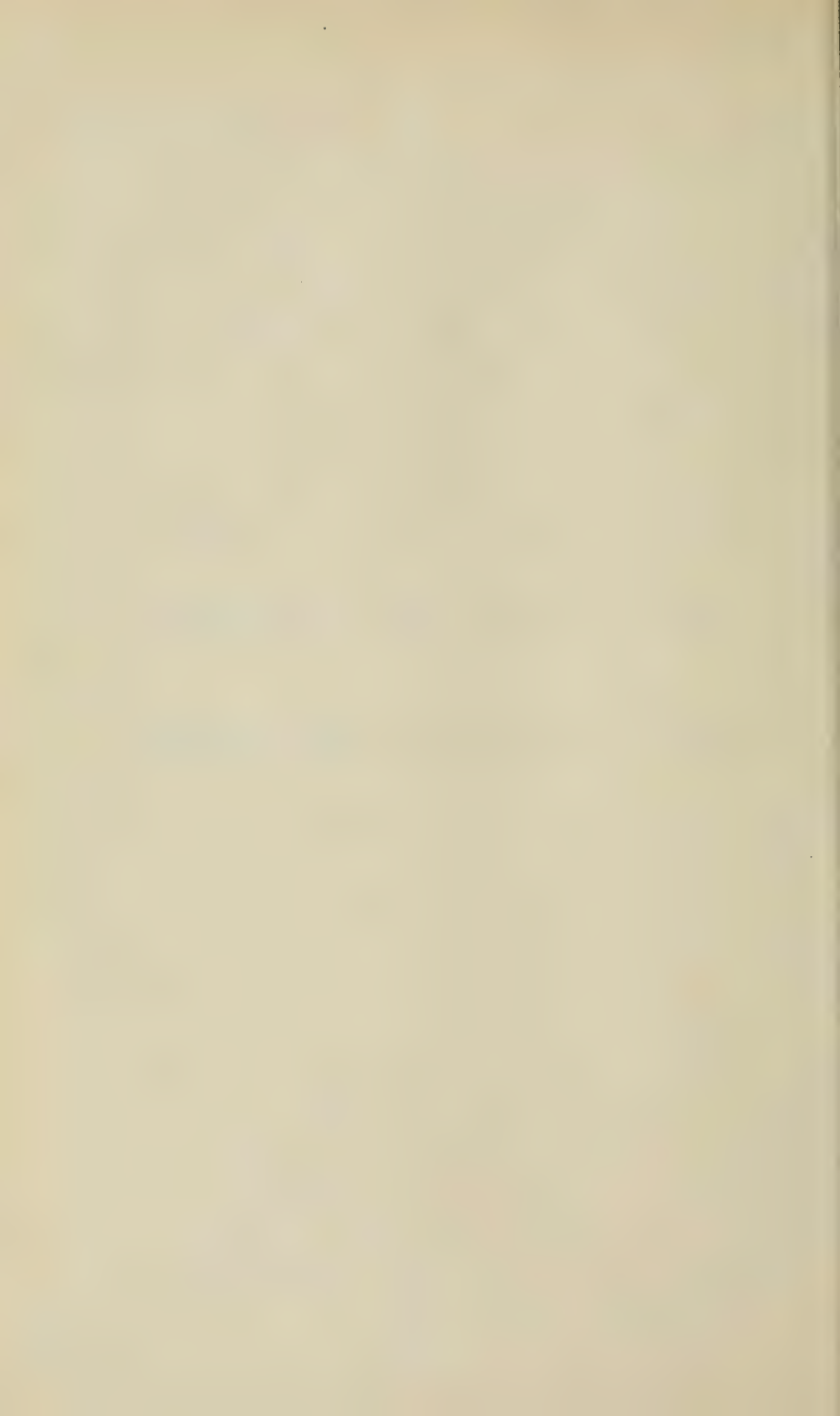
ROBERT T. DEVLIN,
J. CRAIG,
EDGAR J. DEPUE,
P. REDDY,
State Board of Prison Directors.



REPORT OF THE WARDEN

OF THE

STATE PRISON AT SAN QUENTIN, CALIFORNIA.



WARDEN'S REPORT.

WARDEN'S OFFICE,
SAN QUENTIN PRISON, July 31, 1890. }

To the honorable State Board of Prison Directors:

GENTLEMEN: I have the honor to submit herewith my annual report for the forty-first fiscal year, accompanied by the report of the Clerk, showing the financial transactions of the prison, in the form of tabular statements. I also submit the statistical reports of the prison population.

The financial condition of the prison at the end of the fiscal year, as shown by the Clerk's books, is as follows:

Cash in the State Prison Fund.....	\$111,754 59
Cash on hand and in bank.....	47,432 07
Due from sundry debtors	1,901 89
Balance of appropriation for fortieth fiscal year	5,881 81
	<hr/>
Less liabilities on account of unpaid bills and salaries.....	\$166,970 36
	40,054 02
	<hr/>
Leaving a net surplus of available cash resources at the end of year	\$126,916 32

Adding to this amount the sum appropriated for the maintenance of the prison—\$155,000—we have a total of \$291,916 32, which will meet all expenses for the current year, without taking into account any profits that may be realized from sales of jute goods, the only industry now followed.

Under your instructions, the manufacture of doors and sashes was discontinued prior to the beginning of the forty-first fiscal year; and, as all other industries have been abandoned, the sale of jute goods is the only source from which any additional revenue can be expected.

The operation of the jute mill during the past year was confined to the manufacture of grain bags, and this policy has been fully justified by the unprecedented demand made upon us by the farmers of the State. The published estimates at the beginning of the season predicted that the yield of grain would fall far short of the average, on account of the prolonged rainstorms of last winter, which interfered with the preparation of the ground for seeding, and had even drowned out some of the summer-fallowed farms. It was considered, by experts, that the stock of grain bags in the hands of dealers carried over from former years, would be more than sufficient to cover any possible demand. Farmers were not sure of the quality of their growing crops, and, feeling uncertain as to the yield, were inclined to wait until a later date than usual to procure the grain bags likely to be needed by them. The demand, therefore, did not commence until late in May; but when inquiries once began, our bags seemed to be in greater demand than in any previous season, and before the end of June our stock had become completely exhausted. Notwithstanding that circular notices were then sent to all parts of the State that we could not accept any further orders before stated future dates, the receipt of orders was checked only

to a limited extent, and by the end of the month orders were booked for all the bags that the mill could turn out up to the end of July; and, in many instances, where the farmers desiring to purchase had already made arrangements for threshing at an earlier date than we could supply the bags, we were compelled to decline their orders and return remittances.

During the past year raw jute was held at higher prices in India than it had ruled for several years prior. The cost of this raw material consumed during the year was about five eighths of a cent per pound more than it had been during the previous year, and the cost of manufacturing a bag was therefore correspondingly increased.

The grain growers of this State evidently had apprehensions in the early part of the year that the price of grain bags would advance to an unusually high figure, and therefore a request was presented to your honorable Board, by a committee representing the Order of the Patrons of Husbandry, and bearing a petition signed by farmers located in all parts of the State, to sell the grain bags manufactured at the prison at cost, or at a very small margin above the cost of manufacture. Acting upon these representations, your honorable Board decided at the beginning of the season to fix the selling price of the San Quentin grain bags at the lowest possible figure which would not entail a loss upon the State, and the price so fixed—6½ cents per bag—was adhered to from the date of your order, on the tenth of May, to the end of the season. Your action in thus assuring the farmers that the prison grain bags could be purchased at a fixed low price, had the immediate effect of checking the upward tendency of the bag market at the time, and probably prevented the formation of any contemplated combination or "ring" of dealers in bags, who could otherwise have forced farmers to pay almost any price for the bags necessary to transport to market their season's crop of grain, which it soon became apparent was very much better than had been anticipated.

The farming community was therefore greatly benefited by your action; but the realization of any large profit to the State from the sale of grain bags was put entirely out of the question, and consequently the profits derived from the sales during the past year do not at all compare with those of the preceding year, amounting to but \$17,770 98, as against \$80,926 86.

The following statement shows the operations of the jute mill for the year, in detail:

STATEMENT OF OPERATIONS OF JUTE DEPARTMENT FOR THE FISCAL YEAR ENDING JUNE 30, 1890.

Raw jute on hand July 1, 1889.....	1,408	bales.
Raw jute purchased and received since.....	10,000	bales.
Total.....	11,408	bales.
Less raw jute on hand June 30, 1890.....	3,859	bales.
Total.....	7,549	bales.
Less number of bales rejected on account of damage.....	11½	bales.
Used in manufacturing during the year.....	7,537½	bales.
7,537½ bales at 400 pounds equal.....	3,014,950	pounds.
Add decrease in amount of raw jute in process of manufacture on July 1, 1889.....	39,344	pounds.
To amount on June 30, 1890.....	29,041	pounds.
	10,303	pounds.
Net amount of raw jute used during the year.....	3,025,253	pounds.

GOODS MANUFACTURED.

33,736 cuts = 3,373,600 yards 45-inch burlap; 509 cuts = 50,597 yards 36-inch burlap.
 Total, 3,424,197 yards.
 Three-ply twine, 4,220 pounds; five-ply twine, 63,323 pounds; of which amount 47,290 pounds were used in sewing bags, and 3,878 pounds in baling goods.
 Number of grain bags made during the year out of burlap manufactured, 3,026,600.

SPINNING AND WEAVING EXPENSES.

Coal	\$17,808 27
Jute oil	2,918 08
Sizing	3,343 71
Machine oils and engineer's supplies	1,753 20
Tools and repairs	15,117 68
Gas	5,391 39
Salaries	11,259 18
Water	2,614 17
Insurance	619 80
Miscellaneous (board of employés, stationery, etc.)	1,550 39
Raw jute in process of manufacture (dye stuffs)	126 80
	<hr/>
	\$62,502 67
Less expense incurred in sewing bags and keeping sewing machines in repair:	
Say five per cent of coal	\$890 41
Say ten per cent of sizing	334 37
Say five per cent of machine oils, etc.	87 66
Say ten per cent of tools and repairs	1,511 77
Say five per cent of salaries	562 96
Say ten per cent of gas	539 14
Say five per cent of water	130 71
Say five per cent of miscellaneous	77 52
	<hr/>
	4,134 54

Net expense of spinning and weaving 3,424,197 yards of cloth \$58,368 13
 Or $\frac{17,046}{10000}$ cents per yard.

SEWING EXPENSES.

Percentage of gross spinning and weaving expenses, as per statement above ..	\$4,134 54
47,290 pounds twine manufactured and used in sewing bags, at 5 cents	2,364 50
Cotton twine	1,817 90
	<hr/>
Total expense of sewing 3,026,600 grain bags	\$8,316 94
Or $\frac{2743}{10000}$ cents per bag.	

BALING EXPENSES.

4½ yards of 12-ounce cloth at 5.2413 equals	22.7123 cents.
10 ounces of twine at 5.0 equals	3.125 cents.
24 ounces of 8-ply manilla rope at 15.0 equals	22.5 cents.
	<hr/>
Total (per bale)	48.3373 cents.
Cost of baling one grain bag (500 in a bale)	0.0967 cent.
Cost of baling one yard burlap (700 to 800 yards per bale)	0.0645 cent.

SHIPPING EXPENSES.

Drayage credited to stock department.	
\$35 per month, on say 600 bales of goods (per bale)	5.83 cents.
Freight on steamer to San Francisco (per bale)	25.00 cents.
	<hr/>
Total (per bale)	30.83 cents.
Cost of shipping one grain bag	0.062 cent.
Cost of shipping one yard burlap	0.041 cent.

COST PRICE OF GOODS MANUFACTURED DURING THE YEAR ENDING JUNE 30, 1890.

45-inch Burlap.

12 ounces of jute at 4.1005 per pound.....	3.0754 cents.
Waste 15 per cent	0.4613 cent.
Cost of spinning and weaving.....	1.7046 cents.
Cost, loose.....	5.2413 cents.
Baling.....	0.0645 cent.
Cost in bale	5.3058 cents.
Shipping.....	0.0410 cent.
Cost delivered in San Francisco (per yard).....	5.3468 cents.
<i>22x36 Grain Bag.</i>	
39 inches of 45-inch burlap, at 5.2413 cents per yard.....	5.6781 cents.
Sewing.....	0.2748 cent.
Cost, loose.....	5.9529 cents.
Baling.....	0.0967 cent.
Cost in bale	6.0496 cents.
Shipping.....	0.0620 cent.
Cost delivered in San Francisco (per bag).....	6.1116 cents.

TOTAL OPERATING COST OF JUTE MILL FOR THE YEAR ENDING JUNE 30, 1890.

Total expenses incurred, including value of supplies on hand July 1, 1890:

Raw jute	\$180,714 70
Raw jute in process of manufacture	1,738 93
Coal	17,808 27
Sizing	3,531 51
Jute oil.....	3,171 52
Cotton twine	1,985 60
Rope (bale).....	1,542 68
Machine oils and engineer's supplies	1,817 45
Tools and repairs.....	17,331 41
Salaries.....	11,259 18
Gas	5,391 39
Water	2,614 17
Insurance	619 80
Miscellaneous	1,559 54
Freight on manufactured goods	1,710 75
	<hr/>
	\$252,796 90

Less value of supplies on hand June 30, 1890:

Raw jute	\$57,087 84
Raw jute in process of manufacture	1,349 87
Jute oil.....	253 44
Sizing	187 80
Cotton twine	167 70
Rope (bale).....	141 00
Machine oils and engineer's supplies	64 25
Tools and repairs.....	2,213 73
Miscellaneous	9 15
	<hr/>
	61,454 78

Net operating cost for the year

Divided as follows: \$191,322 12

Value of raw jute used	\$123,626 86
Plus decrease in value of raw jute in process of manufacture.....	262 26
Net value of raw jute used in manufacturing.....	<hr/>
Spinning and weaving expenses	\$123,889 12
Sewing expenses.....	58,368 13
Rope used in baling	5,952 44
Freight on manufactured goods	1,401 68
	<hr/>
	1,710 75

\$191,322 12

GOODS SOLD DURING THE YEAR ENDING JUNE 30, 1890.

2,046,900 22x36 grain bags, at $6\frac{1}{2}$ cents.....		\$133,048 50
467,500 22x36 grain bags, at $6\frac{1}{2}$ cents.....	\$30,387 50	
Less rebate for freight to San Francisco, bags being received on board vessels at San Quentin, at 50 cents per thousand.....	233 75	
		30,153 75
45,500 22x36 grain bags, at $6\frac{3}{4}$ cents.....		3,071 25
180,000 22x36 grain bags, at $6\frac{1}{2}$ cents.....	\$12,150 00	
Less rebate for freight to San Francisco, bags being received on board vessels at San Quentin, at 50 cents per thousand.....	90 00	
		12,060 00
69,000 22x36 grain bags, at $6\frac{1}{2}$ cents.....		4,743 75
6,500 22x36 grain bags, at 7 cents.....		455 00
1,000 22x36 grain bags, at $7\frac{1}{2}$ cents.....		71 25
14,500 22x36 grain bags, at $7\frac{1}{2}$ cents.....		1,051 25
51,400 22x36 grain bags, at $7\frac{1}{2}$ cents.....		3,855 00
144,300 22x36 grain bags, at $7\frac{1}{2}$ cents.....		11,183 25
13,500 imperfect grain bags, at 5 cents.....		675 00
50 yards 45-inch burlap, at 6 cents.....		3 00
2,246 yards 45-inch burlap, at $6\frac{3}{4}$ cents.....		151 61
16,713 yards 45-inch burlap, at $6\frac{1}{2}$ cents.....		1,086 36
33 yards apron cloth, at $7\frac{1}{2}$ cents.....		2 48
50,597 yards 36-inch burlap, at $5\frac{5}{8}$ cents.....		2,858 74
1 bean cloth, 30x30 feet.....		6 75
3 bean cloths, 40x40 feet, at \$11 75.....		35 25
2 bean cloths, 50x50 feet, at \$18 75.....		37 50
2 bean cloths, 45x45 feet, at \$14 50.....		29 00
31,700 pounds 5-ply twine, at 7 cents.....		2,219 00
4,220 pounds 3-ply twine, at 8 cents.....		337 60
59,250 pounds jute rope, at $1\frac{1}{2}$ cents.....		669 60
235 pounds loom waste, at $\frac{1}{2}$ cent.....		2 06
16,106 pounds loom waste, at $1\frac{1}{2}$ cents.....		181 19
3,770 pounds loom waste, at $1\frac{1}{4}$ cents.....		47 13
1,434 pounds card waste, at 1 cent.....		14 34
Issued and charged to departments of the prison:		
70 yards 45-inch burlap, at 6 cents.....		4 20
195 yards 45-inch burlap, at $6\frac{1}{2}$ cents.....		12 70
75 pounds 5-ply twine, at 6 cents.....		4 50
Drayage charged in bills.....		3 50
Net amount of sales.....		\$208,074 51

PROFIT AND LOSS ACCOUNT.

Net amount of sales of jute goods during the year ending June 30, 1890.....	\$208,074 51
Value of goods on hand June 30, 1890, at cost price.....	2,985 23
	\$211,059 74
Deduct:	
Net operating expenses for the year.....	\$191,322 12
Value of goods on hand July 1, 1889.....	1,966 64
	193,288 76
Net profit on goods sold during the year.....	\$17,770 98
Or 9.34 per cent on cost price.	

The cost of maintaining this prison for the year, as per abstract of expenses, Clerk's report, has been \$210,949 42. The average number of prisoners under confinement was one thousand three hundred and eighty-one and one sixth, making the per capita cost per day 41.84 cents— $2\frac{1}{2}$ cents less than during the preceding year.

Several items of expense are now incurred in the maintaining of the prison, which did not exist in former years. One of them is the expense attached to running of the Corliss engine in the shop building, which amounted last year to \$6,434 91. Fuel in the shape of waste and refuse lumber, sawdust, and blocks, was formerly obtained from the sash and door and furniture factories in quantities more than sufficient to feed the boilers of this engine. All the manufacturing industries supplied with power by this engine have been abandoned, but the necessity for

running it still exists, as it is the only source from which we can derive power to drive the machinery in the carpenter shop and machine shops, the elevator to the Commissary Department, and to supply steam to the general kitchen, laundry, and similar places. Whereas, formerly the running of this engine cost practically nothing, the coal now consumed by it is quite an item of expense, which must necessarily be charged to the maintaining cost of the prison.

The hours of labor for the guards having been greatly reduced, a larger force is necessarily employed, and the salary roll is correspondingly increased.

An additional item of expense is the cost of prisoners' clothing, none of the prisoners being permitted now, as ordered by your honorable Board, to wear any article of clothing not furnished by the bill of dress, and they are now all clothed throughout with goods of distinctive manufacture for prison use. The increase in expense on this account alone amounts to about \$8,000 per year.

IMPROVEMENTS.

Appropriations were made by the last Legislature for repairs of old buildings, and for the erection of new buildings, as follows: For roofs of cell buildings, \$4,000; for building for guards' quarters over lower gate, \$1,000; for front entrance building, offices, and officers' quarters, \$10,000; for building for the accommodation of the insane prisoners, \$20,000.

The old and leaky asphaltum roofs of the four cell buildings have been removed and replaced by first-class roofs of corrugated iron, and the cells are now protected from the rains. A commodious and substantial brick building for quarters for the guards has been erected over the lower gateway, and a very handsome structure has been erected at the front entrance; it presents a very imposing appearance, and needs only the finishing touches to be ready for occupancy. The appropriations for these much needed improvements have been carefully economized, and a small balance remains unexpended to the credit of each fund.

When the Superintendents of the asylums for the care of the insane met with the Prison Directors, by invitation, to consult on plans for a building for the accommodation of the insane prisoners, it was discovered that there existed a great difference of opinion as to the intention of the Legislature in making the appropriation, and the difference proved so radical that no plans could be agreed upon at that meeting. The dictates of humanity require that an insane person shall receive proper care, and public safety demands that the viciously insane shall be securely confined and prevented from doing injury to the community. Experience teaches that the ordinary safeguards of an asylum are insufficient to detain the cunning criminals who wish to escape; even with all the precautions of walls, and armed guards, and constant watchfulness, there will always be a certain percentage of escapes from prisons, and it seems to me that there should be no inducement held out for criminals to feign insanity in order to be transferred to quarters that can be easily "beaten," as the criminals phrase it. For the safekeeping of the unfortunate convicts who are insane, and to defeat the schemes of those who pretend insanity, the quarters for the accommodation of the insane prisoners

should be located within the prison walls, thus insuring greater security than can be looked for when the building is remote and without the protection of a patrol at night as well as in the daytime. A separate force and a separate staff of officers would be required for quarters without the prison walls, and the statute does not contemplate that expense. The Asylum Superintendents urged the choosing of a site at some distance from the prison, stating that, after spending the appropriation for the building and furnishing, then it would be proper to call on the Legislature for a further appropriation to maintain the new institution. These views were so strongly urged that there has been hesitation about choosing a site, and as the surroundings must necessarily determine the character of the plans, no selection has yet been made.

The Act making the appropriation is very brief; the title reads: "An Act to provide for the erection at San Quentin State Prison a building for the accommodation of the insane prisoners, and making an appropriation therefor," and the first section contains all that pertains to the quarters: "There shall be erected upon lands belonging to the State in connection with the State Prison at San Quentin a building of sufficient capacity to accommodate the insane prisoners of the State Prisons of the State, the same to be constructed under the direction of the Board of State Prison Directors."

I have submitted an outline plan for "a building of sufficient capacity to accommodate the insane prisoners of the State Prisons of the State," in accordance with the language of the statute, and I await instructions.

PURCHASE OF ADJACENT LANDS.

The money appropriated "to purchase adjacent lands for the use of the prison, together with improvements thereon," has been expended as follows: \$2,500 for ninety-five acres of tide lands, conveyed by assignees of Wm. T. Coleman, together with whatever interest they may have in about twenty acres more, adjoining; \$500 for two houses owned by Mrs. Jones; \$100 for house owned by D. Sutherland; \$100 for house owned by W. O'Grady; and \$300 to be paid for house owned by Mrs. Saultry when the estate of her late husband is settled by the Probate Court. The houses owned by John Mann and Henry Schlosser are still held by them, as they refuse to sell for the sums named in the appropriation. Mrs. Edwards and her daughter refuse to sell their houses and the two acres of tide lands. Negotiations for the purchase of land to straighten the north boundary line of the prison tract and for right of way to change the county road have not been completed, as there is some legal complication about the ownership of the adjoining tract.

IDENTIFICATION OF CRIMINALS.

The establishment of some system for the absolutely certain identification of criminals has always been deemed of the utmost importance by prison and police officials, who often found themselves at a loss, even with the aid of photographs, to determine positively and beyond a doubt the identity of suspected criminals. Numerous attempts were made to devise such a system, but all of them were found defective, until at last a French official conceived the idea that the proportions of certain parts of the human body remained fixed and unchangeable after maturity,

and that the measurements of these parts were not exactly alike in any two persons. After years of experiment a system of measurement, based upon these facts, was devised by the officer and adopted by the French police, by which they were enabled to accurately determine the identity of any person whose description was in their possession. This system, called the "Bertillon," after its inventor, proved so successful in France that other countries are following the example and adopting the same.

The "Wardens' Association, for the registration and identification of criminals," was organized in the United States, its founders believing that the Bertillon system of measurements, if adopted by all the principal prisons of the United States, would prove a strong factor in protecting society from the ravages of confirmed criminals, many of whom escape merited punishment through want of identification, or, if convicted, upon a plea of first offense. At the earnest request of its President, your honorable Board authorized me to become a member of the Wardens' Association, and the Bertillon system of measurements was introduced at this prison. The following description of what this system is may prove of interest: The instruments and apparatus used consist of two pairs of sliding compasses, one of large size for the foot, forearm, fingers, and a smaller pair for the ear; graduated measures for height, arms, and trunk; a square, and stools, tables, etc. All the instruments are of French make, their measuring scales being based upon the metric system.

Measurements are taken as follows, the subject being barefoot and in his shirt sleeves:

First—Height of person standing.

Second—Length of outstretched arms from finger tip to finger tip, the arms being extended at right angles to the body.

Third—Length of trunk from bench to the top of the head of person seated.

Fourth—Length of head from cavity at root of nose to remotest point of the back of the head.

Fifth—Width of head between the two points most remote from each other, over the ears, and on a horizontal plane at right angles to the measurement of length.

Sixth—Length of ear from top of the rim to the lowest point of the lobe.

Seventh—Length of left foot.

Eighth—Length of left middle finger from point of knuckle to the tip of the finger, the finger being placed at right angles to the back of the hand.

Ninth—Length of left little finger, determined in the same manner as that of middle finger.

Tenth—Length of left forearm from the point of the elbow to the tip of the farthest projecting finger, the elbow being placed at a sharp angle with the upper arm.

Eleventh—Analysis of color of the left eye:

(a) Color of inner circle (central) pigment.

(b) Color of the extreme (peripheric) circle.

(c) Possible confusion of the pigment (a) with an adjoining class.

(d) Peculiarities.

Twelfth—The nose:

(a) Profile of the ridge, root, and base.

(b) Dimensions: length, projection, and breadth.

(c) Peculiarities.

Thirteenth—The inclination, apparent height and width, and peculiarities of the forehead.

Fourteenth—Marks and scars: nature and origin, direction or inclination, approximate dimensions and accurate location with regard to specified parts of the body.

Besides the foregoing measurements, two photographs are taken of each subject; one showing the profile of right side of the face, the other the full face.

The Bertillon system has been adopted by about twenty penal insti-

tutions in the United States, and all descriptions are forwarded to and filed in the central office of the Wardens' Association, at Chicago.

AN ATTORNEY FOR THE PRISON.

The need for the services of an attorney is shown in the frequent calls upon the Warden to produce prisoners in Court, and show why they should not be set at liberty on some very fine technical point that may arise from a clerical error in making out the commitment from the judgment roll, or from some theory of law on which even the Judges of the Supreme Court entertain a difference of opinion. The Warden should be authorized to employ an attorney whenever needed, or there should be a legal adviser attached to the official staff of the State Board of Prison Directors.

I am now defendant in three suits brought by released prisoners, who were held in custody in accordance with the terms of their commitments, and they have set up claims for damages, although the Supreme Court was at first divided on the point at issue, and re-submitted the cases for hearing before the full Court. Even after the Supreme Court has decided the question (that imprisonment in the State Prison in satisfaction of a fine is not a valid sentence), prisoners have been committed by judgments couched in exactly the same words as those set aside as invalid.

Occasionally I am called upon to notify a District Attorney that the commitment of a prisoner seems to me to be defective, and inquiry discloses the fact that the Clerk of the Court has made an error, which can be easily corrected by making a new commitment. Sometimes the defect is beyond remedy, and the prisoner profits by the error; sometimes the point is not readily determined, and the skill of a lawyer is necessary to arrive at the proper conclusion.

PENALTIES FOR OFFENSES.

The Penal Code makes it a punishable offense to bring into the prison a letter, or any writing, or to take out any letter, or anything from a convict, without the consent of the Warden, but any evil-disposed person may bring in opium or intoxicating liquors, or even explosives, or firearms, and there is no way to punish the offender, under the laws, for that offense. A bill should be prepared to present to the Legislature to fix a penalty for such offenses.

I desire to return my thanks to you, gentlemen, and to the officers of the prison, for unvarying courtesies.

Very respectfully,

JOHN McCOMB,
Warden.

CLERK'S REPORT.

TABLE No. 1.

Cash Receipts of the State Prison at San Quentin during Forty-first Fiscal Year, ending June 30, 1890.

DATE.	General Ap- propriation.	State Prison Fund.	Jute Revolving Fund.	Appropria'n for Roofing Cell Bldgs.	Appropria'n for Front Building.
1889—July		\$26,488 54	\$4,800 00		
August	\$18,832 50		27,045 10		
September		12,243 56	5,482 70		
October		23,246 54			
November	14,683 71	20,435 63	15,773 00	\$3,601 12	
December	14,140 71	15,825 17	8,908 64		
1890—January		5,988 55			
February	39,187 25	478 48	312 50		\$271 00
March	22,474 23		44,199 45		153 10
April	25,597 13		716 90		
May	24,202 66	369 43	9,438 90		2,496 22
June		6,856 29	33,377 70		
Totals	\$159,118 19	\$111,932 19	\$150,054 89	\$3,601 12	\$2,920 32
DATE.	Appropria'n for Lower Gate Bldg.	United States.	Commissary Departme't.	Foundry Departme't.	Furniture Departme't.
1889—July			\$157 29		
August		\$1,133 50	140 64		
September			171 91		
October			172 08		
November	\$595 88		168 10		
December	111 34	1,234 55	214 96		\$8 00
1890—January			149 37		
February	168 52	1,238 85	133 30		
March			123 38	\$3 00	
April			140 44		
May		1,750 50	122 11		7 25
June			167 32		
Totals	\$875 74	\$5,357 40	\$1,860 90	\$3 00	\$15 25
DATE.	Hospital Departme't.	Jute Departme't.	Stock Departme't.	Turnkey Departme't.	Board and Rent.
1889—July	\$33 75	\$7,898 68	\$16 50	\$130 22	\$61 91
August	29 85	10,953 43	25 50	134 50	58 06
September	24 30	1,441 65	104 00	149 15	131 48
October	22 80	169 25	51 50	130 23	69 12
November	21 30	3,252 78	77 75	130 48	83 48
December	21 20	433 70	38 25	131 90	59 10
1890—January	11 80	139 59	38 25	244 97	61 02
February	31 70	11 73	33 50	162 52	69 41
March	21 05	575 71	31 50	105 75	80 38
April	17 45	13,441 62	35 13	138 36	85 54
May	23 85	41,701 58	27 00	147 63	85 54
June	15 35	132,377 16	22 50	137 45	91 82
Totals	\$274 40	\$212,396 88	\$501 38	\$1,743 16	\$936 86

TABLE No. 1—Continued.

DATE.	Gas and Water.	Miscellaneous.	Total.
Balance on hand, June 30, 1889.....			\$45,863 02
1889—July.....	\$16 40	*\$214 00	39,817 29
August.....	12 90		58,365 98
September.....	20 60		19,769 35
October.....	18 20	4 95	23,884 67
November.....	28 10	2 45	58,853 78
December.....	31 60		41,159 12
1890—January.....	30 00	30	6,663 85
February.....	38 65		42,137 41
March.....	31 57		67,799 12
April.....	22 64	1 30	40,196 51
May.....	21 62	60	80,394 89
June.....	21 50	†189 90	173,256 99
Totals.....	\$293 78	\$413 50	\$698,161 98

* July, 1889—Miscellaneous account. This amount consists of one half cost of advertising for supplies received from State Prison, "Folsom."

† June, 1890—Miscellaneous account. This amount consists of one half cost of transportation of fifty prisoners and six guards from San Quentin to Folsom and return.

TABLE No. 2.

Cash Disbursements of the State Prison at San Quentin during the Forty-first Fiscal Year, ending June 30, 1890.

DATE.	State Prison Fund.	Jute Revolving Fund.	Raw Jute, Freight, and Insurance.	Merchandise.
1889—July.....	\$39,086 33	\$4,800 00	\$4,800 00	\$16,449 37
August.....			27,045 10	15,677 89
September.....	857 44	17,209 44		
October.....			5,482 70	13,755 21
November.....			15,773 00	23,583 94
December.....			18,680 00	12,397 86
1890—January.....				
February.....			312 50	25,166 17
March.....			44,199 45	13,658 28
April.....			716 90	14,949 97
May.....	1,000 00	34,225 25	9,438 90	13,423 42
June.....	15,819 35	93,820 20	33,377 70	
Totals.....	\$54,763 12	\$150,054 89	\$159,826 25	\$149,062 11

DATE.	Materials.	Salaries.	Salaries of Employés.	Allowance in Lieu of Board.
1889—July.....	\$641 77	\$5,170 00	\$970 00	\$303 80
August.....	260 70	5,130 00	970 00	249 20
September.....	247 24	5,223 56	970 00	252 70
October.....	240 53	5,340 81	970 00	282 10
November.....	495 85	5,277 73	970 00	282 10
December.....	497 05	4,963 33	827 49	258 30
1890—January.....		5,122 58	861 12	316 40
February.....	3,752 91	5,242 80	970 00	303 80
March.....	100 90	5,425 92	972 67	303 80
April.....	123 05	5,702 68	1,107 90	311 50
May.....	1,256 39	5,702 42	1,120 00	325 50
June.....		5,957 87	1,120 00	337 50
Totals.....	\$7,616 39	\$64,259 70	\$11,829 18	\$3,526 70

TABLE No. 2—Continued.

DATE.	Discharged Prisoners.	Transportation of Prisoners.	Escaped Prisoners.	General Expense.	Expense of State Prison Directors.
1889—July	\$215 00	\$224 35	-----	\$343 03	\$788 65
August	210 00	160 60	\$6 00	143 37	581 40
September	160 00	216 00	100 00	50 00	768 45
October	155 00	131 75	-----	182 69	-----
November	155 00	154 95	68 05	212 17	275 90
December	200 00	175 15	-----	139 66	152 00
1890—January	205 00	260 70	-----	40 00	-----
February	165 00	225 60	-----	231 71	-----
March	205 00	171 50	-----	123 51	781 90
April	185 00	254 90	-----	184 21	279 45
May	210 00	228 85	60 35	260 94	832 50
June	205 00	198 50	-----	126 00	-----
Totals	\$2,270 00	\$2,402 85	\$234 40	\$2,042 29	\$4,460 25

DATE.	Electric Lights.	Gas.	Water.	Insurance.	Advertising.
1889—July	\$165 00	\$527 29	\$1,062 15	-----	\$428 00
August	165 00	541 79	1,334 37	\$12 00	-----
September	-----	-----	-----	-----	-----
October	165 00	612 55	1,334 02	463 61	-----
November	330 00	1,377 06	1,919 27	57 00	-----
December	165 00	568 86	204 72	45 00	-----
1890—January	-----	-----	-----	-----	-----
February	330 00	1,582 09	992 39	-----	-----
March	248 33	1,095 40	432 42	-----	-----
April	290 00	1,196 61	543 97	619 80	27 05
May	290 00	1,016 52	712 12	-----	51 80
June	-----	-----	-----	-----	-----
Totals	\$2,148 33	\$8,518 17	\$8,535 43	\$1,197 41	\$506 85

DATE.	Freight.	United States.	Purchase of Lands, etc.	Drugs and Medicines.	Material, Lower Building.
1889—July	\$809 94	\$34 70	\$3,100 00	\$141 99	-----
August	569 60	5 35	-----	62 38	-----
September	-----	-----	-----	-----	-----
October	262 06	-----	-----	44 47	-----
November	687 68	-----	-----	196 42	\$595 88
December	214 50	5 35	-----	66 06	111 34
1890—January	-----	45 35	-----	-----	-----
February	816 10	24 45	-----	182 18	168 52
March	366 53	14 35	-----	65 40	-----
April	756 45	20 35	-----	81 18	-----
May	346 17	-----	-----	62 45	-----
June	-----	-----	-----	-----	-----
Totals	\$4,829 03	\$149 90	\$3,100 00	\$902 53	\$875 74

TABLE No. 2—Continued.

DATE.	Material for Roofing Cells.	Material, Front Building.	Attorney's Fees.	Miscellaneous.	Total.
1889—July				*\$105 20	\$78,166 57
August				†177 50	53,302 25
September					26,054 83
October					29,422 50
November	\$3,601 12				56,013 12
December					39,671 67
1890—January			\$350 00		7,201 15
February		\$271 00			40,737 22
March		153 10			68,323 46
April			100 00		27,450 97
May		2,496 22	210 00	196 75	73,366 55
June				\$57 50	151,019 62
Totals	\$3,601 42	\$2,920 32	\$660 00	\$436 95	\$650,729 91
Balance on hand June 30, 1890					47,432 07
					\$698,161 98

* July, 1889—Miscellaneous account includes salary of F. M. Cramer, Superintendent State Carpenter Shop: June \$100, and rebate on sale of furniture, \$5 20.

† August, 1889—Miscellaneous account includes salary of F. M. Cramer, Superintendent State Carpenter Shop: July \$160, and rebate on sale of grain bags, \$17 50.

‡ May, 1890—Miscellaneous account includes rebate paid sundry farmers on sale of grain bags.

§ June, 1890—Miscellaneous account includes rebate paid sundry farmers on sale of grain bags.

TABLE No. 3.

Exhibit of the Issues of Commissary Department for the Forty-first Fiscal Year, ending June 30, 1890.

DATE.	Subsistence.	Forage.	Wood and Coal.	Coal Oil.	Tobacco.
1889—July	\$7,351 85	\$131 83	\$2,244 12	\$105 83	\$625 67
August	6,151 99	160 58	1,286 28	114 56	762 69
September	5,204 93	121 17	3,154 02	93 41	680 40
October	5,785 12	370 96	2,449 77	107 13	537 50
November	5,742 36	122 46	1,420 13	136 13	673 19
December	5,365 62	460 25	1,865 80	125 90	601 01
1890—January	5,301 88	135 77	2,609 91	137 63	608 59
February	5,528 15	289 41	2,591 90	138 72	666 61
March	6,581 91	257 99	2,536 93	130 20	790 71
April	6,459 90	310 64	2,585 87	109 34	672 02
May	6,768 80	127 81	2,880 41	136 42	823 34
June	6,527 96	121 11	2,374 99	120 51	672 09
Totals	\$72,770 47	\$2,609 98	\$28,000 13	\$1,455 78	\$8,113 82

TABLE No. 3 —Continued.

DATE.		Clothing.	Beds and Bedding.	Drugs and Medicine.	Leather and Findings.
1889—	July	\$1,170 79	\$171 45	-----	\$549 10
	August	1,347 61	172 65	-----	762 39
	September	1,047 20	84 33	-----	563 72
	October	1,536 24	80 51	\$27 13	653 40
	November	1,935 39	342 00	15 73	480 14
	December	2,474 73	376 97	18 59	372 69
1890—	January	1,195 81	359 22	16 62	745 41
	February	1,677 72	485 64	22 37	734 40
	March	2,448 15	361 70	11 64	738 65
	April	703 19	52 40	17 30	540 22
	May	93 13	6 84	21 85	383 40
	June	601 48	13 08	15 85	406 42
Totals		\$16,231 44	\$2,506 79	\$167 08	\$6,929 94

DATE.	Furniture and Crockery.	Hardware and Tools.	Building Material.	Paints, Oils, etc.	Wagons and Harness.
1889—	July	\$98 17	\$863 00	\$195 63	\$864 89
	August	32 75	783 40	172 59	621 48
	September	30 98	410 90	27 09	596 94
	October	38 91	4,095 37	692 36	817 56
	November	45 52	1,302 19	257 73	705 83
	December	41 20	869 09	803 85	179 79
1890—	January	30 08	991 22	292 09	446 26
	February	54 89	828 23	107 92	767 14
	March	40 05	1,047 01	237 37	705 36
	April	40 00	722 26	426 62	798 81
	May	20 24	1,419 27	3,036 33	952 39
	June	21 41	1,270 49	158 51	668 90
Totals		\$494 20	\$14,602 43	\$6,408 09	\$8,125 35

DATE.	Stationery.	Ordnance.	Miscellaneous.	Total.
1889—	July	\$73 68	-----	\$501 51
	August	48 41	-----	746 23
	September	92 19	-----	400 20
	October	52 80	\$226 10	62 29
	November	46 31	-----	73 01
	December	26 20	-----	99 15
1890—	January	100 22	16 85	105 21
	February	56 45	8 05	60 29
	March	52 77	85	102 97
	April	69 00	-----	70 79
	May	58 62	-----	85 92
	June	48 74	-----	75 27
Totals		\$725 39	\$251 85	\$2,382 84

\$172,170 05

TABLE No. 4.

Abstract of Expenses for the Forty-first Fiscal Year.

Advertising		\$271 51
Attorney fees		675 00
Insurance		396 00
Gas		4,320 38
Electric lights		2,563 33
Water		6,994 47
Water service		315 09
Engineer's Department		6,434 91
Guards' Department		764 22
Hospital Department		1,848 17
Library Department		1 40
Turnkey's Department		35,290 41
Guards' mess	\$7,669 61	
Officers' mess	4,152 90	
Prison mess	55,193 72	
Turnkey's mess	774 63	
Allowance to officers, in lieu of board	3,526 70	
Warden's house, "subsistence"	1,601 74	
		72,919 30
Warden's house, general expense		632 69
Salaries		64,259 70
Expense of State Prison Directors*		4,460 25
General expense		1,899 47
General repairs		1,136 26
Clerk's offices		481 08
Warden's house, "furniture and fixtures"		143 33
Escaped prisoners		253 40
Discharged prisoners		2,270 00
Transportation of prisoners		2,604 20
Transportation of insane prisoners		14 85
Total expense for the year		\$210,949 42

* Includes expenses incurred during the thirty-ninth, fortieth, and forty-first fiscal years.

TABLE No. 5.

Cost of Maintaining Prisoners per Head.

Average number of prisoners for the year, 1,381 $\frac{1}{8}$ —total cost		\$210,949 42
Average cost per head per month		12 72 $\frac{3}{4}$
Average cost per head per day		41.84
Total expense for the year (Table 3)		\$210,949 42
Net earnings of manufacturing departments	\$18,915 14	
Support of United States prisoners	4,892 50	
Rent of State houses	626 00	
Profit on sale of beef, etc., in Commissary Department	517 69	
		24,951 33
Net expense of the prison for the year		\$185,998 09
Average net cost per head per month		11 22.6
Average net cost per head per day		36.89

TABLE No. 6.
Earnings, Forty-first Fiscal Year.

Foundry Department.....	\$1,004 75	
Jute Department.....	17,770 98	
Stock Department.....	139 41	
Net earnings of departments.....		\$18,915 14
Support United States prisoners.....	\$4,892 50	
Rent of State houses.....	626 00	
Commissary Department, profit on cash sales of beef.....	517 69	
		6,036 19
Total earnings for the year.....		\$24,951 33

TABLE No. 7.
Assets and Liabilities.

<i>Assets.</i>		
Buildings, gas and water mains.....	\$470,984 81	
Real estate and improvements.....	44,675 92	
Reservoirs.....	31,278 55	
Brick Department.....	5,702 90	
Commissary Department, property.....	764 96	
Commissary Department, stock.....	4,205 30	
Engineer's Department, machinery.....	35,250 00	
Engineer's Department, stock and tools.....	1,000 55	
Foundry Department.....	8,487 65	
Furniture Department.....	14,264 49	
Guards' Department.....	12,346 24	
Hospital Department.....	1,206 18	
Jute Department, machinery and equipment.....	249,685 69	
Jute Department, stock, fabrics, etc.....	64,460 01	
Library Department.....	947 10	
Stock Department.....	11,598 78	
Turnkey's Department.....	32,692 39	
Clerk's offices.....	1,187 08	
Warden's house, furniture and fixtures.....	6,885 39	\$997,623 99
Guards' mess.....	\$891 95	
Officers' mess.....	324 62	
Prison mess.....	1,788 27	
		3,004 84
Due from the United States.....	\$923 50	
Due from sundry debtors.....	978 39	
Cash in State Prison Fund.....	111,754 59	
Cash balance on hand June 30, 1890.....	47,432 07	
Balance in general appropriation, forty-first fiscal year.....	5,881 81	166,970 36
Total assets on June 30, 1890.....		\$1,167,599 19
<i>Liabilities.</i>		
Total assets June 30, 1890.....		\$1,167,599 19
Unpaid bills for merchandise, etc., months May and June.....	\$32,827 94	
Unpaid salaries of officers and guards, for month of June.....	5,831 51	
Unpaid allowance to officers in lieu of board, for June.....	274 59	
Unpaid wages of department employes, for June.....	1,120 00	
Total liabilities June 30, 1890.....		40,054 02
Excess of assets.....		\$1,127,545 17

TURNKEY'S REPORT.

SAN QUENTIN, July 16, 1890.

Gen. JOHN McCOMB, Warden California State Prison, San Quentin:

SIR: I herewith submit my tabulated reports of the Turnkey's Department for the fiscal year ending June 30, 1890.

Very respectfully,

B. DOUGHERTY,
Turnkey.

TABLE No. 1.

Recapitulation of Received and Discharged Prisoners, from July 1, 1889, to June 30, 1890.

MONTH.	By Commitment	Returned Convict Witnesses By Commitment, U. S. Prisoners	Escapes Recaptured	Prisoners Remanded by Order of Court	Returned with Additional Charge	Transferred from Folsom	Returned from Insane Asylum	Total Received	Discharged per Act and Re- stored	Discharged per Act	U. S. Prisoners Discharged	Taken out for a New Trial	
1889—July	42			1				43	21	21	1		
August	32		1	1				34	17	20			
September	34	1	3					36	15	13		1	
October	56	2	1					60	17	14			
November	39			1				42	17	14	1		
December	53	1	2		2	1		58	22	15			
1890—January	36			1				40	30	11	1		
February	40			2				42	20	14			
March	59		1			50		110	13	26	1	1	
April	44			1				45	22	10	2	1	
May	36	6		2				44	20	20	1	1	
June	42							42	17	21			
Totals	513	10	8	4	8	2	50	1	596	231	198	7	4

MONTH.	Taken out on Writ of Habeas Corpus	Taken out on Certificate of Probable Cause	Taken out on Additional Charge	Taken out as Witness	Pardoned by the Governor	Discharged by Order of Court	Transferred to Folsom	Suicided	Escaped	Died	Taken to Insane Asylum	Total Discharged	Number of Prisoners on Hand at Close of Each Month
1889—July	1				2				1	1		48	1,368
August		1			6				1	1		45	1,357
September				1	4				3	1		38	1,355
October		1		3						5		40	1,375
November									5			37	1,380
December		1	3	1	3				2			47	1,391
1890—January	1			2					3	1		49	1,382
February	2								2			38	1,386
March				1	2	50			1	10		95	1,401
April	1				3	1			1			51	1,395
May	2				2				1			47	1,392
June					3			1				42	1,392
Totals	7	3	3	8	25	1	50	1	6	31	1	577	

TABLE No. 1—Continued.

Recapitulation of Received and Discharged Prisoners, from July 1, 1889, to June 30, 1890.

Number of prisoners on hand June 30, 1889.....		1,373
Number of prisoners received by commitment.....	513	
Number of United States prisoners received.....	10	
Returned with additional charge.....	2	
Returned convict witnesses.....	8	
Escapes recaptured.....	4	
Prisoners remanded by order of Court.....	8	
Transferred from Folsom.....	50	
Returned from Insane Asylum.....	1	
Total.....		596
Discharged per Act and restored.....	231	
Discharged per Act.....	199	
Transferred to Folsom.....	50	
Taken out for new trial.....	4	
Taken out on writ of habeas corpus.....	7	
United States prisoners discharged.....	7	
Taken out on certificate of probable cause.....	3	
Taken out as witness.....	8	
Escaped.....	6	
Died.....	31	
Taken out on additional charge.....	3	
Pardoned by the Governor.....	25	
Suicided.....	1	
Taken to Insane Asylum.....	1	
Discharged by order of Court.....	1	
Total.....		577
Number of prisoners on hand June 30, 1890.....		1,392
Increase for the fiscal year.....		19

TABLE No. 2.

Prisoners Received, and on what Days of the Month, from July 1, 1889, to June 30, 1890.

DAY OF MONTH.	1889.						1890.						Total
	July	August	September	October	November	December	January	February	March	April	May	June	
First			2			2		2	51	1		1	59
Second	3	3		1	1			1	1		2		12
Third	5		2	1	2	2	2	1	1		2	2	20
Fourth		2	1	3	1	4	2	1			1	2	17
Fifth	1		3	2		3	7		3	1	1	1	23
Sixth		1			1	1		2		1			6
Seventh	3		3	1	5	3	1	7	3	1	1	1	29
Eighth	2	2	2	2		3	3	1	1	3		1	20
Ninth	2	1			1	1	1		3	2		1	12
Tenth		1	1	2	6		2	2	2	2	2	3	23
Eleventh	2	1	3	5			2		3	1		2	19
Twelfth	1		2	1	1	4	1		2	6	2		20
Thirteenth		1	5	2		2			3		1	1	15
Fourteenth	1	1	1	4	1	2	4	1	1		4	5	23
Fifteenth	1		1	1		5		2	3			1	14
Sixteenth		3	1	1	4	1	1	2	3	2	3	4	25
Seventeenth	1	1	2	1	1	5	1	1	3	2	3		21
Eighteenth	8	1		1	2		1	2		1	2	1	19
Nineteenth			3	2			3	1	1	2		2	14
Twentieth	1	1		1		5		1	3	3	1		16
Twenty-first	3	1		3		1	1	3	2	1	1	3	19
Twenty-second		2	1	3	3	1	1	5	2	6		1	23
Twenty-third	1	2	1	3	3	2		1	1	1			15
Twenty-fourth	4		1	5	2	2			2	2	1		19
Twenty-fifth	1	1		2		2			3	1	1	1	12
Twenty-sixth		1		6	1		2	1	1	3	1		16
Twenty-seventh		2		2	4			3	4	1	4	1	21
Twenty-eighth	2	1	1	1		1	2	1	1	1	2	2	15
Twenty-ninth		3			2	1	1		1	1	4	5	18
Thirtieth		1		1	1	2	1		5		3	1	15
Thirty-first	1	1		3		3	1		1		2		12
Totals	43	34	36	60	42	53	40	42	110	45	44	42	596

TABLE No. 3.

Prisoners Discharged, and on what Days of the Month, from July 1, 1889, to June 30, 1890.

DAY OF MONTH.	1889.						1890.						Total
	July	August	September	October	November	December	January	February	March	April	May	June	
First	1	3		1	1				53			1	60
Second	1	2		1	1	4	2	1	2	2	1	3	20
Third				1	3	2	1		2	1	5		15
Fourth	1		4	4		1	1	1	1	3			16
Fifth		2	2	1	1		1	2	1	2	4		16
Sixth	2	1	3	3				1	1	2		2	15
Seventh	3	1	1		1	1	2	2		1	2		14
Eighth		1	1		3	2		2		2	1	3	15
Ninth	1		1	2	1	2	2	1	2	2	1	1	16
Tenth		2	1	2	2	2			1	2			12
Eleventh		1	1	1	1		3	1	1	1		1	11
Twelfth	4	1	4	1	2		4	1	1		2		20
Thirteenth	4	2	1		1			2	3	3	1	1	18
Fourteenth	3	1	3		3	1	1	2	1	1	1	1	18
Fifteenth	2	3	1	3	1	1	2	2	1			2	18
Sixteenth	1	3		4	3	5	1		2	1	3	4	27
Seventeenth	3		1		1	4	3	1	4		1	2	20
Eighteenth	1	1	3		1	3		1	1	3	6	4	24
Nineteenth	1	3		2		2	1			2	3	1	15
Twentieth	1		3	2		2	4				1	2	15
Twenty-first	3	1		2	1	1		1		2	4	3	18
Twenty-second	1	6	2	1			1	2	1	1	1	1	16
Twenty-third	1	1		1	1	3		5	2	5	1		20
Twenty-fourth	4		3	2		1	1		3	1	2		17
Twenty-fifth	2	1		1	1	2	4	2	2	3	1		19
Twenty-sixth	2	1	2	2		2	3	1	1	1	1		16
Twenty-seventh	2		1	1	3	1	4	2	3		2	3	22
Twenty-eighth	1	3					2	6	3	2	2	3	22
Twenty-ninth	2			2		2			1	2		2	11
Thirtieth		4			5	1	2		1	6	1	2	22
Thirty-first	1	1				2	4		1				9
Totals	48	45	38	40	37	47	49	38	95	51	47	42	577

TABLE No. 4.

Nativity of Prisoners.

UNITED STATES.	No.	FOREIGN.	No.
Alaska	5	American waters	1
Arizona Territory	1	At sea	1
Alabama	2	Austria	9
Arkansas	5	Australia	11
California	298	Belgium	3
Connecticut	3	British Columbia	1
Colorado	5	Canada	32
District of Columbia	2	China	139
Florida	2	Chili	4
Georgia	3	Central America	1
Illinois	49	Denmark	2
Indiana	13	England	48
Iowa	18	East Indies	1
Kentucky	19	France	18
Kansas	4	Finland	2
Louisiana	9	Germany	65
Massachusetts	52	Greece	1
Missouri	29	Ireland	75
Maryland	15	Italy	19
Maine	8	Japan	1
Michigan	10	Lower California	3
Montana	2	Mexico	41
Minnesota	4	Nova Scotia	2
Mississippi	1	New Brunswick	8
New York	129	Portugal	4
New Hampshire	2	Poland	3
New Jersey	7	Russia	1
New Mexico	2	Sweden and Norway	14
Nevada	1	Switzerland	10
Nebraska	1	Scotland	13
North Carolina	3	Sicily	1
Ohio	27	Sandwich Islands	1
Oregon	11	New South Wales	2
Pennsylvania	45	West Indies	1
Rhode Island	8	Wales	2
South Carolina	7		
Tennessee	2	Total	540
Texas	6		
Utah	1		
Vermont	3		
Virginia	20		
West Virginia	1		
Wisconsin	17		
Total	852		
		RECAPITULATION.	
		United States	852
		Foreign	540
		Total	1,392

TABLE No. 5.
Classification of Crime.

CRIME.	No.	CRIME.	No.
Arson	1	Crime against nature	7
Arson, first degree	4	Deserting a child	1
Arson, second degree	4	Embezzlement	7
Abduction for the purpose of pros- titution	1	Forgery	55
Administering poison with intent to kill	1	Felony	43
Assault to murder	35	Felony and burglary, first degree ..	1
Assault to murder and prior	2	Grand larceny	218
Assault to murder, assault to rob ..	1	Grand larceny, second offense	1
Assault to murder and robbery	2	Grand larceny and escape	2
Assault to murder (two commit- ments)	3	Grand larceny, burglary, second degree, and escape	1
Assault with intent to commit mur- der	20	Grand larceny and prior	8
Assault to rape	15	Grand larceny (three commit- ments)	1
Assault to rape and prior	1	Grand larceny and five priors	1
Assault with intent to commit rape ..	1	Grand larceny and assault to mur- der	1
Assault to rob	13	Grand larceny, burglary, first de- gree, burglary, first degree, and arson, second degree (four com- mitments)	1
Assault with a deadly weapon	16	Incest	2
Assault with a deadly weapon and \$1,000 fine	1	Injuring a public jail	3
Assault with a deadly weapon and burglary, first degree	1	Mayhem	3
Assault with a deadly weapon and assault to rob	2	Mayhem and resisting an officer ..	1
Assault with a deadly weapon with intent to murder	6	Mayhem and assault with a deadly weapon	1
Assault with a dangerous weapon ..	2	Manslaughter	61
Attempt at grand larceny	3	Murder	14
Attempt at burglary	4	Murder, first degree	100
Attempt at burglary (two commit- ments)	1	Murder, second degree	90
Attempt at burglary, first degree	4	Misusing U. S. mail	2
Attempt at burglary, first degree, and prior	3	Misusing U. S. mail and \$100 fine ..	1
Attempt at burglary, first and sec- ond degrees	1	Misusing U. S. mail in carrying out scheme to defraud, and \$750 fine (three commitments)	1
Attempt at robbery	2	Passing counterfeit money	3
Attempt at arson, first degree	1	Perjury	10
Attempt at bribe	2	Petit larceny and priors	3
Attempt to commit rape	2	Petit larceny and prior felony	1
Assault with intent to commit the infamous crime against nature	1	Petit larceny, second offense	10
Buggery	2	Petit larceny and prior petit lar- ceny	1
Bridge burning	1	Placing obstruction on the track of a railroad	1
Burglary	87	Rape	14
Burglary (two commitments)	3	Robbery	110
Burglary and prior petit	1	Robbery and assault with a deadly weapon	1
Burglary, first degree	146	Robbery (three commitments)	3
Burglary, first degree, and prior	6	Robbery (four priors)	1
Burglary, first degree, and prior petit	1	Robbery and prior petit	4
Burglary, first degree, and prior, and burglary, first degree (two commitments)	1	Robbery of U. S. mail	1
Burglary, first degree, and escape ..	1	Robbery and injuring a jail	1
Burglary, first degree, and assault with a deadly weapon	1	Receiving stolen goods	5
Burglary, second degree	176	Seduction, under the promise of marriage	1
Burglary, second degree, and prior ..	2	Subornation of perjury	1
		Smuggling	1
		Total	1,392

TABLE No. 6.

Terms of Imprisonment.

TERM.	No.	TERM.	No.
One half year	3	Fourteen years	47
One year	85	Fifteen years	48
One and one third years	1	Fifteen and one half years	1
One and one half years	25	Sixteen years	3
One and ten twelfths years	1	Seventeen years	5
Two years	153	Eighteen years	3
Two and one third years	1	Nineteen years	1
Two and one half years	24	Twenty years	19
Two and two thirds years	1	Twenty-one years	5
Two and three quarters years	2	Twenty-two and one half years	1
Three years	115	Twenty-three years	1
Three and one quarter years	1	Twenty-four years	4
Three and one half years	6	Twenty-five years	19
Four years	90	Twenty-eight years	2
Four and one half years	1	Twenty-nine years	1
Five years	189	Thirty years	5
Six years	42	Thirty-two years	1
Six and one sixth years	1	Thirty-three years	1
Six and one half years	1	Thirty-four years	1
Seven years	85	Thirty-five years	6
Seven and one half years	1	Thirty-six years	1
Eight years	65	Forty years	6
Nine years	15	Forty-five years	1
Ten years	131	Fifty years	8
Eleven years	4	Life-timers	131
Twelve years	24		
Thirteen years	3	Total	1,392
Thirteen and ten twelfths years	1		

TABLE No. 7.

Number of Prisoners from each County.

COUNTY.	No.	COUNTY.	No.
Alameda	66	San Francisco	430
Amador	3	San Benito	7
Butte	31	San Bernardino	56
Calaveras	11	San Joaquin	44
Contra Costa	16	San Luis Obispo	12
Colusa	9	San Mateo	9
Del Norte	1	Santa Barbara	20
El Dorado	2	Santa Clara	61
Fresno	44	Santa Cruz	4
Humboldt	11	Shasta	28
Inyo	4	Sierra	13
Kern	32	Siskiyou	9
Lake	7	Solano	13
Los Angeles	115	Sonoma	26
Lassen	1	Stanislaus	11
Marin	8	Santa Clara and Marin	1
Mendocino	18	San Francisco and Marin	2
Mariposa	6	San Joaquin, Placer, and Marin	1
Merced	17	Tehama	13
Mono	3	Trinity	2
Monterey	22	Tulare	28
Modoc	5	Tuolumne	16
Nevada	10	Ventura	10
Napa	22	Yolo	6
Orange	2	Yuba	6
Placer	16	Alaska Territory	7
Plumas	1	Arizona Territory	1
Sacramento	33		
San Diego	40	Total	1,392

TABLE No. 7—Continued.

Number of Terms.

Prisoners serving their first term.....	1,087
Prisoners serving their second term.....	174
Prisoners serving their third term.....	74
Prisoners serving their fourth term.....	31
Prisoners serving their fifth term.....	9
Prisoners serving their sixth term.....	13
Prisoners serving their seventh term.....	2
Prisoners serving their eighth term.....	2
Total.....	1,392

TABLE No. 8.

Age of Prisoners.

AGE.	No.	AGE.	No.
Twelve.....	1	Forty-four.....	23
Fourteen.....		Forty-five.....	22
Fifteen.....		Forty-six.....	15
Sixteen.....	11	Forty-seven.....	24
Seventeen.....	17	Forty-eight.....	28
Eighteen.....	33	Forty-nine.....	5
Nineteen.....	49	Fifty.....	13
Twenty.....	52	Fifty-one.....	8
Twenty-one.....	42	Fifty-two.....	7
Twenty-two.....	80	Fifty-three.....	7
Twenty-three.....	55	Fifty-four.....	6
Twenty-four.....	72	Fifty-five.....	6
Twenty-five.....	56	Fifty-six.....	12
Twenty-six.....	53	Fifty-seven.....	6
Twenty-seven.....	62	Fifty-eight.....	9
Twenty-eight.....	62	Fifty-nine.....	2
Twenty-nine.....	48	Sixty.....	4
Thirty.....	60	Sixty-one.....	2
Thirty-one.....	30	Sixty-two.....	2
Thirty-two.....	42	Sixty-three.....	4
Thirty-three.....	43	Sixty-four.....	4
Thirty-four.....	43	Sixty-five.....	4
Thirty-five.....	39	Sixty-six.....	1
Thirty-six.....	28	Sixty-seven.....	3
Thirty-seven.....	42	Sixty-eight.....	2
Thirty-eight.....	34	Sixty-nine.....	1
Thirty-nine.....	23	Seventy-one.....	2
Forty.....	25	Seventy-four.....	1
Forty-one.....	19		
Forty-two.....	26	Total.....	1,392
Forty-three.....	13		

TABLE No. 8—Continued.

Educational Abilities of Prisoners.

Read and write.....	1,100
Read and cannot write.....	51
Neither read nor write.....	241
Total.....	1,392

TABLE No. 9.

Occupation of Prisoners when Received.

OCCUPATION.	No.	OCCUPATION.	No.
Apprentice	3	Herder	2
Accountant	1	Horse trainer	4
Art bronzer	1	Horseshoer	2
Architect	2	Hunter	2
Artist	1	Hackman	1
Assayer	1	Ironer	7
Amalgamator	1	Insurance agent	1
Baker	9	Journalist	1
Bookkeeper	17	Lawyer	3
Barkeeper	13	Laborer	281
Barber	31	Milliner	4
Blacksmith	29	Molder	7
Butcher	17	Miner	41
Brickmason	17	Marble cutter	1
Broommaker	2	Machinist	27
Boilermaker	7	Merchant	4
Brakeman	5	Mattressmaker	1
Boltcutter	1	Millwright	1
Butler	1	Messenger boy	2
Buttonmaker	1	Nurse	6
Boxmaker	1	Printer	13
Blockmaker	1	Plasterer	3
Boatman	1	Plumber	6
Brewer	3	Policeman	1
Bootblack	1	Painter	17
Canmaker	1	Physician	1
Cook	104	Papermaker	1
Carver	4	Photographer	1
Carpenter	34	Polisher	4
Cigarmaker	31	Quarryman	4
Clerk	34	Railroad employé	14
Cabinetmaker	5	Ship carpenter	4
Cooper	2	Saloonkeeper	4
Coach driver	2	Sashmaker	3
Civil engineer	1	Sailor	47
Carriage trimmer	1	Solicitor	1
Carriage painter	1	Storekeeper	1
Crackermaker	1	Servant	2
Chairmaker	1	Sign painter	1
Confectioner	3	Stock raiser	5
Coffee roaster	1	Seamstress	1
Cotton classer	1	Shorthand reporter	1
Domestic	2	Steward	4
Decorator	1	Stonecutter	3
Dairyman	2	Stevodore	4
Druggist	4	Salesman	3
Dog trainer	1	Spinner	1
Dyer	1	Shoemaker	30
Dentist	2	Teamster	44
Engraver and penman	1	Tailor	9
Engineer	16	Tinsmith	10
Electrician	1	Typesetter	1
Electroplater	1	Telegraph operator	3
Farmer	51	Upholsterer	5
Fisherman	10	Veterinary surgeon	1
Florist	4	Vaquero	32
Fireman	15	Washerman	70
Furniture polisher	2	Weaver	2
Foundryman	3	Wool scouring	1
Filer and sawyer	6	Waiter	46
Gardener	4	Wood turner	3
Gasfitter	3	Washerwoman	2
Glovesmaker	2	Watchmaker	1
Harnessmaker	15		
Hostler	28	Total	1,392
Housewife	5		

TABLE No. 10.

Statistics of Environments as Compiled from the Statements of Prisoners. Details of their Habits, Relations, and Conditions prior to their Arrest and Conviction, and the Causes that led thereto.

	No.		No.
<i>Color.</i>		<i>Religious Denominations.</i>	
White	1,188	Catholic (Roman)	578
Black	31	Catholic (Greek)	15
Indian	23	Baptist	60
Mongolian (Chinese)	139	Episcopalian	76
Mongolian (Japanese)	1	Lutheran	67
Indo-Caucasian	1	Methodist	95
Mulatto	9	Presbyterian	67
		Universalist	45
Total	1,392	Hebrew	25
		Mormon	7
<i>Residence.</i>		Pagan	140
Residents of State	852	Irreligious	217
Non-residents of State (land)	493		
Non-residents of State (sea)	47	Total	1,392
		<i>Conjugal Relation.</i>	
Total	1,392	Married	264
		Married and separate	68
<i>Moral Relations.</i>		Widowed	40
Intemperate	683	Single	1,020
Moderate	49		
Temperate	46	Total	1,392
Opium users	614		
		<i>Social Relations.</i>	
Total	1,392	Parents living	470
		Parents dead	280
<i>Educational.</i>		Father living	195
Read, write, and cipher (English)	665	Mother living	180
Read and write (English)	103	No knowledge of parents	267
Read only (English)	31		
Read and write (English and foreign)	123	Total	1,392
Read only (foreign)	200		
Read and write (foreign only)	30	<i>Age when Parents Died.</i>	
Illiterate	240	Under 10 years when father died	90
		Over 10 years when father died	85
Total	1,392	Over 18 years when father died	141
		Under 10 years when mother died	85
<i>School.</i>		Over 10 years when mother died	79
Public school	945	Over 18 years when mother died	173
Private school	108	Parents that are not dead	493
College	43	No knowledge of death of parents	246
Self-educated	75		
No school	221	Total	1,392
		<i>Soldiers or Sailors.</i>	
Total	1,392	Served in United States Army	87
		Served in United States Navy	21
<i>Attending Church.</i>		Served in Confederate Army	11
Regular	547	Served in Confederate Navy	3
Irregular	469	Served in State Militia	121
Never	376	Served in German Army	4
		Served in German Navy	5
Total	1,392	Served in English Army	6
		Served in English Navy	5
<i>At Sunday School.</i>		Served in French Army	3
Regular	540	Served in French Navy	5
Irregular	475	Served in Italian Army	2
Never	377	Served in Italian Navy	6
		Served in Mexican Army	7
Total	1,392	Served in other foreign armies and navies	19
		Served in no branch of service	1,087
		Total	1,392

TABLE No. 10—Continued.

	No.		No.
<i>How Crime was Committed.</i>			
Alone	927	For rape and assaults to rape	\$8,750
With accomplices	465	For miscellaneous crimes	32,000
Total	1,392	For transportation	27,000
		Total	\$641,650
<i>Where Living when Crime was Committed.</i>		<i>Causes of Crime.</i>	
Living in city	575	Crime caused by liquor	437
Living in town	75	Crime caused by destitution	164
Living in country	180	Crime caused by bad associates	556
Wandering from place to place	562	Crime caused by sudden impulses	98
Total	1,392	Crime caused by ignorance	70
		Crime caused by wrong inflicted, real or imaginary	24
<i>Time of Committing Crime.</i>		Crime caused by gambling	43
By night	676	Total	1,392
By day	716	<i>Cause of Committing Crime.</i>	
Total	1,392	Professional criminal	255
<i>Place of Committing Crime.</i>		Destitution	65
Houses of business (mercantile)	123	Liquor	295
Houses of business (monetary)	23	Opium	560
Private residences	277	Women	60
Public residences (hotels, etc.)	197	Uncontrollable influences	35
Highways (railroads and stage routes)	100	Ignorance	50
Highways (common roads, etc.)	56	Bestial passions	40
Saloons	271	Resisting	20
Miscellaneous places	345	Gambling	12
Total	1,392	Total	1,392
<i>Estimated Amount of Property Stolen.</i>		<i>Industrial Relations.</i>	
By forgeries	\$56,000	Trades (multiple)	130
By burglaries	87,000	Trades (single)	700
By robberies	65,000	Knowledge of trade	106
By false representation	1,250	No trade (laborer)	281
By false claims	1,500	No trade (vagrant)	150
By larcenies (grand)	63,000	Professions	25
By larcenies (petit)	250	Total	1,392
By receiving stolen goods	2,000	<i>Ability to Gain Livelihood.</i>	
Total	\$296,000	Can earn \$200 per month	-
<i>Estimated Damage Inflicted.</i>		Can earn \$190 per month	-
By arson	\$27,000	Can earn \$180 per month	-
By burglarious operations	72,000	Can earn \$170 per month	1
Miscellaneous	25,500	Can earn \$160 per month	2
Total	\$124,500	Can earn \$140 per month	10
<i>Estimated Cost of Conviction and Transportation.</i>		Can earn \$120 per month	40
For murder	\$280,000	Can earn \$100 per month	75
For burglary	150,750	Can earn \$90 per month	87
For arson	8,750	Can earn \$80 per month	90
For assault to murder	47,000	Can earn \$70 per month	95
For assault with a deadly weapon	2,250	Can earn \$60 per month	110
For robbery and assault to rob	85,150	Can earn \$50 per month	175
		Can earn \$40 per month	125
		Can earn \$30 per month	130
		Can earn \$20 per month	200
		Can earn \$10 per month	112
		Can earn \$5 per month	40
		Can earn \$0 per month	50
		A burden to the State	50
		Total	1,392

TABLE No. 10—Continued.

	No.		No.
<i>Plea.</i>			
Pleaded guilty	685	Pleaded guilty in order to mitigate the penalty	235
Pleaded not guilty	707	Pleaded guilty because of prior conviction	135
Total	1,392	Pleaded guilty to avoid prosecution for other crimes	25
		Pleaded guilty to murder	6
Pleaded guilty because had neither friends nor money	240	Pleaded not guilty to murder	265
Pleaded guilty to save disgrace of friends	25	Pleaded not guilty to assault to murder	55
Pleaded guilty through ignorance of the law	40	Pleaded not guilty because had money and friends	366
		Total	1,392

TABLE No. 11.

From what Counties Committed, and in what Year.

COUNTY.	1867.	1872.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.
Alameda										
Amador				1				1		
Butte							1			
Calaveras							1			
Colusa										1
Contra Costa	1					1				
Del Norte								1		
El Dorado								1		
Fresno										1
Humboldt					1					
Inyo										1
Kern										1
Lake									1	
Los Angeles							1	1		3
Lassen										
Marin										1
Mendocino										1
Mariposa										
Merced										
Mono										
Monterey								1		1
Modoc										
Nevada							1		1	
Napa										
Orange										
Placer			1	1					1	4
Plumas							1			
Sacramento		1	1						1	
San Francisco		1		1	2		1	1	1	1
San Benito										
San Bernardino							1		2	
San Diego		1							1	
San Joaquin								1		
San Luis Obispo										
San Mateo										
Santa Barbara				1				1		
Santa Clara						1				
Santa Cruz										
Shasta										
Sierra										
Siskiyou										
Solano										
Sonoma									1	
Stanislaus										1
Santa Clara and Marin										
San Francisco and Marin										1
San Joaquin, Placer, and Marin										
Sutter										
Tehama					1			1		2
Trinity										
Tulare					1					3
Tuolumne										1
Ventura										1
Yolo										
Yuba										
Alaska Territory										
Arizona Territory										
Totals	1	3	2	4	5	2	7	9	9	22

TABLE No. 11—Continued.

COUNTY.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	Total.
Alameda		1	2		8	8	9	13	15	56
Amador		1						1	1	6
Butte			2	2	1	3		12	8	29
Calaveras			1	2		1			6	11
Colusa				1	2	2	2	1	1	10
Contra Costa			1	3			1	5	4	16
Del Norte		1								2
El Dorado			1							2
Fresno	2	2	4	3	6	3	4	1	19	45
Humboldt					2	3	1	2	3	12
Inyo			1	1					1	3
Kern			2		1			12	14	30
Lake		1	1	1	1	2		1	1	9
Los Angeles	1	1	2	3	6	7	10	49	35	119
Lassen									1	1
Marin		1		2	1	1	3	2	2	12
Mendocino			1		3		1	4	6	16
Mariposa				2	1	3		1		7
Merced			2		3	4	2	3	5	19
Mono					2		1			3
Monterey	1		2	3	4	2	6	10	4	34
Modoc			1	1	1				1	4
Nevada					3	1		1		7
Napa	1	2	2			1	3	7	9	25
Orange									2	2
Placer	1				1			4	3	16
Plumas										1
Sacramento	2	2	3	2	3	3	4	3	8	33
San Francisco	8	5	5	21	37	84	38	91	125	422
San Benito			1		1			2	3	7
San Bernardino			2		4	10	7	15	15	56
San Diego			1	1		4	4	15	9	36
San Joaquin				2	5	7	5	8	21	49
San Luis Obispo			1		1	3		6	2	13
San Mateo						1		2	5	8
Santa Barbara			3		2			7	6	20
Santa Clara	1		1	4	3	9	4	7	39	69
Santa Cruz								1	2	3
Shasta	2					1		8	11	22
Sierra		2	2			2	1		3	10
Siskiyou					3	1		4	1	9
Solano		1				4		5	5	15
Sonoma	2		2	2	4	2	2	9	4	28
Stanislaus	1	1			1			1	2	7
Santa Clara and Marin									1	1
San Francisco and Marin	1		1							3
San Joaquin, Placer, and Marin									1	1
Sutter									1	1
Tehama				1			1	5	4	15
Trinity			1	1						2
Tulare			1			7		2	6	20
Tuolumne	1		1	2	2	4	1	1	3	16
Ventura		1					3	4	2	9
Yolo						2	1	2		5
Yuba						1		4	2	7
Alaska Territory								4	3	7
Arizona Territory								1		1
Totals	24	22	48	61	113	186	113	337	424	1,392

TABLE No. 12.

Industrial and Criminal Life of Prisoners.

YEARS PASSED IN CRIMINAL PURSUITS.	YEARS PASSED IN INDUSTRIAL PURSUITS.										Total.
	1 to 2	2 to 4	4 to 6	6 to 8	8 to 10	10 to 15	15 to 20	20 to 30	30 to 40	40 to 50	
Twenty-five to thirty				1	4	3	1	1			10
Twenty to twenty-five				2	6	4	2	3	2		19
Fifteen to twenty	9	7	4	8	2	10	13	15	2		70
Ten to fifteen	11	8	7	2	11	13	14	2	1		69
Eight to ten	13	7	19	5	17	17	21	11			110
Seven to eight	11	4	9	5	15	2	4	1	2	2	55
Six to seven	15	3	7	4	13	1	2	3	2	1	51
Five to six	11	7	8	3	12	9	10	8	2		70
Four to five	4	3	7	9	9	9	6	9	2		58
Three to four	20	9	7	4	9	16	8	3	5		81
Two to three	16	40	39	25	30	59	45	44	15	4	317
One to two	61	45	56	70	45	81	60	44	15	5	482
Totals	171	133	163	138	173	224	186	144	48	12	1,392

TABLE No. 13.

Terms Served in State Prisons and other Institutions.

TERMS SERVED IN OTHER PRISONS THAN SAN QUENTIN.	First term in San Quentin, by transfer from Folsom	First term in San Quentin, by Original Com- mitment, Served one Term at Folsom	First Term in San Quen- tin, by Original Com- mitment	Second Term in San Quentin, by Original Commitment.	Third Term in San Quen- tin, by Original Com- mitment	Fourth Term in San Quentin, by Original Commitment.
Served two terms in Folsom	8			4	3	
Served one term in Folsom	30	11		2	2	4
Served two terms in other State Peni- tentiaries		1		1		
Served one term in other State Peniten- taries		1		1		2
Served four terms in San Francisco House of Correction	13	2	50	7	2	
Served three terms in San Francisco House of Correction	11	3	40	6	3	
Served two terms in San Francisco House of Correction	10	1	42	20	3	
Served one term in San Francisco House of Correction	13	2	52	23	12	
Served in San Francisco Industrial School	9	17	275	26	9	
Served in one or more County Jails	12	10	146	24	6	
Been incarcerated in Insane Asylum			4	14	3	
Only to San Quentin committed			261	31	27	24
Totals	106	48	870	159	71	30
TERMS SERVED IN OTHER PRISONS THAN SAN QUENTIN.	Fifth Term in San Quentin, by Original Com- mitment	Sixth Term in San Quen- tin, by Original Com- mitment	Seventh Term in San Quentin, by Original Commitment	Eighth Term in San Quentin, by Original Commitment.	First Term in San Quen- tin, by Transfer from Folsom, has Served Terms in Other Prisons	Total
Served two terms in Folsom					9	24
Served one term in Folsom					23	72
Served two terms in other State Peni- tentiaries					6	8
Served one term in other State Peniten- taries					2	7
Served four terms in San Francisco House of Correction					2	76
Served three terms in San Francisco House of Correction						63
Served two terms in San Francisco House of Correction					2	78
Served one term in San Francisco House of Correction						102
Served in San Francisco Industrial School					21	357
Served in one or more County Jails					17	215
Been incarcerated in Insane Asylum					11	32
Only to San Quentin committed	4	7	2	2		358
Totals	4	7	2	2	93	1,392

TABLE No. 14.

Showing the Number of Prisoners in the State Prison at San Quentin, June 30, 1890, under Commitment for Murder, in what Years Committed, and from what Counties.

COUNTY.	1876.	1878.	1879.	1881.	1884.	1885.	1886.	1887.	1888.	1890.	Total.
Butte							1				1
Calaveras					1	1					2
Colusa									1		1
Fresno							1				1
Humboldt	1									1	2
Kern			1						1		2
Los Angeles		1						1			2
Modoc					1						1
Merced									1		1
Tehama				1							1
Totals	1	1	1	1	2	1	2	1	3	1	14

TABLE No. 15.

Showing the Number of Prisoners in the State Prison at San Quentin, June 30, 1890, under Commitment for Murder in the First Degree, in what Years Committed, and from what Counties.

COUNTY.	1873	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	Total
Alameda										1					1			2
Amador		1															1	2
Butte																	1	1
Calaveras																	1	1
Colusa												1						1
Contra Costa				1												1		2
Del Norte						1												1
Fresno								3		1								4
Inyo							1											1
Kern										1								1
Los Angeles									1									1
Marin										2								2
Mendocino								1					1	1				3
Mariposa														1				1
Nevada					1		1			1				1				4
Napa											1							1
Placer		1					1					1	1					4
Sacramento									2	1		1				1	1	6
San Francisco		1	1		1		2	1	2		2		2	3		2	1	18
San Bernardino							2						2	1				5
Santa Barbara			1			1									1			3
San Diego	1						1				1				1			4
San Joaquin											1							1
Santa Clara									1		1	1		2	1			6
San Mateo													1					1
Solano	1												1			1		3
Siskiyou											1							1
Sierra										1	1				1			3
Shasta									1						1			2
Sonoma							1		1							1		3
Tulare			1				1							1				3
Tehama			1			2												3
Tuolumne									2							1		3
Ventura							1			1								2
Yolo																1		1
Totals	2	4	3	1	2	4	11	5	10	9	8	4	10	9	9	6	3	100

TABLE No. 16.

Showing the Number of Prisoners in the State Prison at San Quentin, June 30, 1890, under Commitment for Murder in the Second Degree, what years Committed, and from what Counties.

COUNTY.	1872.	1876.	1878.	1879.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	Total
Alameda		1						1		1					3
Amador															1
Butte					1										1
Colusa												1			1
Contra Costa								1							1
El Dorado							1								1
Fresno						1		1	1			2			5
Humboldt										1		1			2
Inyo								1	1						2
Kern					1								1		2
Lake							1				2				3
Los Angeles					1			2							3
Marin													1	1	2
Mendocino				2	1			1							4
Monterey															2
Mariposa									2						2
Nevada												1			1
Napa						1					1				2
Plumas			1												1
Sacramento	1														1
San Francisco							2	2	1	4	4	3	2	1	19
Sierra									1						1
San Bernardino			1										1		2
Santa Barbara								1							1
San Diego	1								1			1			3
San Joaquin												3			3
Santa Clara											2		2		4
Solano											1			1	2
Sonoma							1		1		1		1		4
Stanislaus						1									1
San Luis Obispo															
Siskiyou													1		1
Tulare					1			1			1				3
Tehama		1											1		2
Tuolumne					1					1					2
Yolo											1				1
Total	2	2	2	2	6	3	5	11	8	7	13	12	10	3	86

NOTE.—Contra Costa, in 1867, 1; Sacramento, in 1874, 1; Marin, in 1877, 1; Alameda, in 1880, 1. Total, 90.

TABLE No. 17.

Showing the Number of Prisoners in the State Prison at San Quentin, June 30, 1890, under Commitment for Manslaughter, in what Years Committed, and from what Counties.

COUNTY.	1885.	1886.	1887.	1888.	1889.	1890.	Total.
Alameda		1	1		1		3
Butte			1				1
Contra Costa					1		1
Fresno						1	1
Kern					1		1
Los Angeles	2		3	3	2	1	11
Mendocino			1				1
Merced	1		1				2
Mono				1			1
Marin	1						1
Napa						1	1
San Francisco	1		5	4	1	4	15
San Bernardino		1			1		2
San Joaquin			1				1
San Luis Obispo		1			1		2
Stanislaus			1	1			2
San Mateo				1			1
Sonoma		1		3	1		5
San Diego				1			1
Sierra				1			1
Santa Clara					1	2	3
Trinity	1						1
Tulare			2				2
Arizona					1		1
Totals	6	4	16	15	11	9	61

TABLE No. 18.

Showing the Number of Prisoners in the State Prison at San Quentin, June 30, 1890, under Commitment for Felonious Assaults, in what Years Committed, and from what Counties.

COUNTY.	1880.	1881.	1883.	1884.	1886.	1887.	1888.	1889.	1890.	Total.
Alaska								1	2	3
Alameda						1			1	2
Colusa						1				1
Fresno				1				1		2
Humboldt					1	1		1		3
Los Angeles							1	3	1	5
Marin								1		1
Mendocino									3	3
Monterey					1			1	1	3
Mariposa						2				2
Merced								2		2
Placer								1		1
San Francisco		1	1		3	4	2	7	8	26
Sacramento								2		2
San Bernardino								5	2	7
San Luis Obispo								1		1
Santa Barbara					1				1	2
San Diego								4		4
Santa Clara	1					1			1	3
Solano			1			1				2
Sonoma		1								1
Sierra				2						2
Shasta							2			2
Tulare					1			3	1	5
Trinity							1			1
Ventura								2		2
Totals	1	2	2	3	7	11	6	35	21	88

TABLE No. 19.

Offenses Against Life.

YEAR COMMITTED.	Murder—First Degree	Murder	Murder—Second Degree	Manslaughter	Felonious Assaults	Total
Committed in year 1867			1			1
Committed in year 1872			2			2
Committed in year 1873	2					2
Committed in year 1874			1			1
Committed in year 1875	4					4
Committed in year 1876	3	1	2			6
Committed in year 1877	1		1			2
Committed in year 1878	2	1	2			5
Committed in year 1879	4	1	2			7
Committed in year 1880	11		1		1	13
Committed in year 1881	5	1	6		2	14
Committed in year 1882	10		3			13
Committed in year 1883	9		5		2	16
Committed in year 1884	8	2	11		3	24
Committed in year 1885	4	1	8	6		19
Committed in year 1886	10	2	7	4	7	30
Committed in year 1887	9	1	13	16	11	50
Committed in year 1888	9	3	12	15	6	45
Committed in year 1889	6		10	11	35	62
Committed in year 1890	3	1	3	9	21	37
Totals	100	14	90	61	88	353

TABLE No. 20.

Prison Account from 1851 to July 1, 1890.

YEAR.	Prisoners Received by Order of Court	Pardons Revoked	Escapes Recaptured	Returned from Insane Asylum	Returned Convict Witnesses	United States Prisoners Received	Returned with an Additional Sentence on New Charge	Remanded by Order of Court	Total Received	Discharged per Act and Restored	Discharged per Act
1851	35								35		
1852	105		3						108		12
1853	163		2						165		38
1854	211		16						227		87
1855	266		25						291	1	94
1856	258		29						287	4	103
1857	245		32						277		114
1858	226		33						259	32	94
1859	220		50						270	16	119
1860	295		20						315	1	145
1861	238		9						247		130
1862	190		74						264	4	153
1863	163		4						167		134
1864	232		2						234	43	121
1865	235		1						236	7	137
1866	254	1	2	1					258	25	129
1867	287								287	41	175
1868	284	1							285	40	197
1869	332		1						333	110	95
1870	375			1					376	155	90
1871	373			5					378	185	59
1872	396			1					397	160	99
1873	206		2						208	82	58
1874	409		2	2					413	185	117
1875	542	1	3						546	214	119
1876	513		4	1					518	244	96
1877	615	1	3	1					620	164	129
1878	715								715	214	163
1879	597	1	6						604	264	124
1880	581		5	1	12	4		2	555	324	172
1881	525		2		2	4		3	557	336	168
1882	488		1	1	8	11		1	510	231	171
1883	415				20	4		1	440	232	132
1884	410		3	1	11	5		5	437	196	136
1885	424	1	2		5	11		1	447	190	96
1886	433	1		2	13	7		1	460	230	99
1887	403		1	2	6	4			418	236	94
1888	415		1	2	11	9		1	597	194	147
1889	448	1	3	2	6	5		15	480	118	263
1890	513		4	1	8	10		2	546	231	199
Totals	13,985	8	345	24	121	74	9	36	14,767	4,718	4,818

TABLE No. 20—Continued.

YEAR.	Pardoned by the Governor	Pardoned by the President	Discharged by Commutation of Sentence	Discharged by Order of Court	Escaped	Died	Sent to Insane Asylum	Taken out as a Convict Witness	Discharged by Order of United States Officials	Taken out by Order of Court	Total Discharged
1851					1						1
1852	2				6	1					21
1853	9				8	3					58
1854	14				87	6					194
1855	29			4	28	1					157
1856	18			1	65	5					196
1857	28			4	72	14	2				234
1858	27			7	23	5	3				191
1859	33			13	95	17	1				299
1860	25			7	127	7	2				314
1861	34			4	35	8	1				212
1862	11			5	90	15	8				286
1863	24				24	4	7				193
1864	11			3		17	1				196
1865	11			10	1	8	3				177
1866	23			8	4	8	1				212
1867	37			11		16	3				289
1868	44			7	5	9					303
1869	22			7		10	4				248
1870	32	1		14	1	10	13				325
1871	37		1	16	2	16					316
1872	61	1	2	15	2	12	9				361
1873	15	1	1	20	2	8	3				190
1874	26	2		27		11	5				377
1875	32			35	6	18					425
1876	66		10	42	3	15	4				481
1877	30	2	35	37	10	16	2				427
1878	16	1	62	58	2	27	3				546
1879	17	2	53	20	10	29	8				527
1880	19	2	20	1	7	28	2	14	1	14	604
1881	7	3	15	1	7	23	1	20		18	852
1882	20	2		2	1	14	5	8		11	525
1883	45			1	1	13		22	2	11	459
1884	32	1	1	1	4	14	3	11	1	17	468
1885	52	1		1	3	15	11	5	1	13	390
1886	27	2		2	3	29	3	13		5	425
1887	33	1	7		2	31	19	7	9	5	445
1888	18	1			3	32	7	11	5	17	440
1889	18	1		5	6	35	1	6	3	17	484
1890	25		1	1	6	32	1	8	7	15	527
Totals.....	1,035	32	208	390	752	580	136	125	50	145	13,375

NOTE.—Received, 14,767; discharged, 13,375; prisoners on hand June 30, 1890, 1,392; transferred to Folsom Prison, in 1881, 253; in 1882, 60; in 1884, 50; in 1885, 2; in 1886, 4; in 1887, 1; in 1888, 7; in 1889, 11; in 1890, 50; total, 438. Received by transfer from Folsom Prison, in 1885, 3; in 1886, 3; in 1887, 2; in 1888, 157; in 1890, 50; total, 215.

TABLE No. 21.

Report of Number of Days of Labor for Fiscal Year ending June 30, 1890—Productive Class.

MONTH.	First Shift	Second Shift	Third Shift	Chair Department	Engineer's Department	Foundry Department	Paint Shop	Tin Shop	Plumber Shop	Cooper Shop
1889.										
July	11,704	7,699		78	217	382	104	104	150	26
August	11,355	7,429		81	276	417	58	108	135	27
September	10,899	6,901		90	247	330	100	100	100	25
October	10,441	6,785		108	248	336	108	130	101	27
November	5,085	2,373		104	237	337	182	127	136	26
December	6,933	4,018		100	248	350	144	116	120	25
1890.										
January	12,299	9,345		52	247	360	92	130	124	26
February	9,556	6,299	4,913	72	224	343	74	120	96	24
March	9,303	6,496	6,210	78	248	351	78	290	104	26
April	9,527	6,743	5,449	63	238	372	78	118	85	26
May	8,774	5,805	5,483	54	233	398	84	107	82	27
June	8,822	6,411	5,185	72	240	386	99	100	75	25
Totals	114,628	76,304	27,240	952	2,903	4,362	1,201	1,550	1,308	310
MONTH.	Quarry	Chick'n Ranch	Hog Ranch	Stables	Vegetable Gardens	Flower Gardens	Coal Yard	Carpenter Shop	Blacksmiths	Wheelwrights
1889.										
July	726	31	31	777	1,213	420	31	310	156	52
August	1,191	31	31	813	1,064	351	31	310	179	54
September	947	30	30	771	920	345	30	275	150	50
October	782	31	31	805	833	287	31	317	152	54
November	818	30	30	826	1,023	287	30	362	150	52
December	110	31	31	775	281	249	31	243	125	50
1890.										
January	85	31	31	695	261	367	31	257	135	52
February	130	28	28	514	152	413	28	229	148	48
March	179	31	31	532	189	466	31	207	182	26
April	226	30	30	527	296	453	30	181	182	52
May	190	31	62	534	322	323	31	269	157	54
June	175	30	60	517	350	320	30	273	172	50
Totals	5,559	365	426	8,086	6,904	4,281	365	3,233	1,888	594

TABLE No. 21—Continued.

MONTH.	Upholsterers	Beltmaker	Locksmith	Improvements	Road Gang	Stevadores	Female Department	Harnessmaker	Grand Total
1889.									
July	49	26	31	104	2,361	402	520	61	27,763
August	27	27	31	108	2,461	613	602	81	27,891
September	25	25	30	110	1,980	504	550	49	25,613
October	54	27	31	297	1,621	343	597	27	24,604
November	52	26	30	987	2,829	385	618	26	17,168
December	50	25	31	412	493	265	593	25	15,874
1890.									
January	52	26	31	313	853	354	595	25	26,799
February	48	24	28	341	487	285	566	26	25,244
March	52	26	31	337	330	316	628	24	26,802
April	52	26	30	448	384	326	624	26	26,622
May	54	27	31	487	353	318	600	27	44,917
June	50	25	30	580	311	325	578	25	45,316
Totals	565	310	365	4,524	14,463	4,436	7,071	422	294,615

Non-Productive Class.

MONTH.	Warden's Office	Deputy Warden's Office	Turnkey's Office	Secretary's Office	Guards Department	Commissary Department	Library Department	Laundry Department	Tailor Shop
1889.									
July	25	31	169	90	155	302	124	707	416
August	31	31	186	93	155	315	124	625	415
September	30	30	180	90	150	299	94	624	380
October	31	31	186	93	171	340	101	695	441
November	30	30	180	90	180	345	120	650	596
December	31	31	186	93	189	317	124	624	503
1890.									
January	31	31	185	92	186	852	146	660	429
February	28	28	140	112	186	307	105	621	342
March	31	31	155	93	186	337	115	662	290
April	30	21	150	90	180	337	149	661	295
May	31	31	155	67	186	364	130	691	311
June	30	30	150	81	188	336	134	688	302
Totals	359	356	2,022	1,084	2,112	3,951	1,466	7,908	4,720

TABLE No. 21—Continued.

MONTH.	Shoe Shop.....	Barber Shop.....	Cell and Room Tenders.....	Bath Tank Tend- ers.....	Gate Tenders.....	Lamp Lighters.....	Hospital Nurses.	Whitewashers ..	Sweepers.....
1889.									
July	292	184	620	31	401	62	128	154	206
August	335	186	625	31	401	62	125	230	211
September	345	186	657	60	399	60	120	249	179
October	286	186	666	62	418	62	124	288	206
November	304	214	660	60	404	60	120	286	229
December	309	218	696	62	410	62	124	299	269
1890.									
January	308	206	701	62	412	62	124	280	370
February	248	196	616	56	376	56	112	228	302
March	307	189	686	62	350	62	124	212	279
April	286	211	699	60	364	60	120	208	242
May	352	248	794	62	371	62	124	220	295
June	321	240	755	60	390	60	120	197	272
Totals	3,673	2,464	8,175	668	4,606	730	1,465	2,851	3,060

MONTH.	Scavengers.....	General Kitchen.	Outside Kitchen.	Hospital Kitch- en.....	House Servants.	Electricians.....	Messengers	Telegraph Oper- ator
1889.								
July	203	2,082	403	217	425	188	217	-----
August	218	1,999	403	125	425	64	218	-----
September	210	1,961	393	60	416	69	192	-----
October	252	1,994	406	62	442	62	186	31
November.....	360	2,133	390	60	384	60	180	30
December	302	2,153	404	62	419	62	186	31
1890.								
January	390	2,219	406	124	384	71	186	31
February	356	2,124	357	71	339	72	167	28
March	350	2,201	403	93	384	93	208	31
April	355	2,043	411	90	442	63	182	30
May	452	2,077	434	93	701	62	186	31
June	387	2,070	419	93	720	60	185	30
Totals	3,835	25,056	4,829	1,050	5,481	926	2,293	273

TABLE No. 21—Continued.

MONTH.	Photographers	Cripples, etc.	Patients in Hospital	Unemployed, etc.	Daily Excuses, etc.	Copyists	Warden's Laundry	Grand Total
1889.								
July	62	289	205		479	199	62	9,106
August	62	360	266	652	649	81	62	9,765
September	60	362	245	695	582	81	60	9,498
October	62	392	240	3,855	404	128	62	12,965
November	60	338	238	10,326	196	156	60	19,429
December	36	337	242	10,485	182	140	62	19,650
1890.								
January	52	407	275	738	503	125	62	10,610
February	56	394	220	50	407	96	56	8,852
March	62	474	265	911	495	76	62	10,279
April	60	496	248	1,549	363	73	60	10,628
May	62	535	164	1,919	593	81	62	12,946
June	57	583	170	957	572	53	60	9,770
Totals	691	4,967	2,778	32,137	5,403	1,289	730	143,498

TABLE No. 22.

Report of Articles Manufactured, Received, and Issued during the Forty-first Fiscal Year, Commencing July 1, 1889, and Ending June 30, 1890.

1889 AND 1890.	CITIZEN PANTS.				CITIZEN SHOES.			
	Manufactured	Issued	Received Second Hand	Issued Second Hand	Manufactured	Issued	Received Second Hand	Issued Second Hand
July	20	18	12	8	32	30	3	2
August	25	22	14	12	25	21	2	2
September	24	28	10	19	40	30	4	3
October	20	18	15	10	30	40	6	5
November	15	16	20	14	20	30	4	4
December	18	15	18	18	40	20	3	3
January	19	14	19	14	22	18	2	4
February	20	20	14	10	30	10	1	2
March	24	18	10	9	42	20	3	3
April	30	19	9	8	18	30	10	6
May	27	20	12	21	48	69	2	2
June	27	41	12	19	48	67	5	3
Totals	269	249	165	162	395	385	45	39

TABLE No. 22—Continued.

1889 AND 1890.	CITIZEN COATS.				CITIZEN VESTS.			
	Manufactured	Issued	Received Sec- ond Hand	Issued Second Hand	Manufactured	Issued	Received Sec- ond Hand	Issued Second Hand
July	25	24	8	3	24	20	12	2
August	24	25	12	2	25	21	13	3
September	30	20	9	1	30	25	14	4
October	26	21	11	2	20	24	15	1
November	30	30	10	3	18	30	10	2
December	31	25	10	1	32	18	9	1
January	20	21	8	1	20	29	8	1
February	18	20	12	2	30	30	7	1
March	21	23	6	4	15	20	20	3
April	30	24	14	6	10	10	18	1
May	25	35	10	10	41	35	10	11
June	30	30	10	5	40	33	9	10
Totals	310	298	120	40	305	295	145	40

1889 AND 1890.	CONVICT PANTS.				CONVICT SHIRTS.			
	Manufactured	Issued	Received Sec- ond Hand	Issued Second Hand	Manufactured	Issued	Received Sec- ond Hand	Issued Second Hand
July	150	100	20	10	185	150	30	20
August	165	90	25	11	165	175	20	18
September	100	180	15	25	140	160	18	19
October	200	145	10	18	121	121	40	35
November	195	110	11	19	140	118	38	25
December	140	95	19	21	175	150	19	40
January	165	45	18	30	180	240	32	39
February	200	200	6	8	200	235	16	18
March	145	165	35	12	185	240	14	20
April	131	160	41	13	225	210	45	35
May	300	400	25	39	278	105	73	35
June	200	350	15	30	200	100	50	36
Totals	2,091	2,040	240	236	2,194	2,004	395	340

TABLE No. 22—Continued.

1889 AND 1890.	UNDERSHIRTS.				DRAWERS.			
	Manufactured	Issued	Received Second Hand	Issued Second Hand	Manufactured	Issued	Received Second Hand	Issued Second Hand
July	200	140	25	20	200	150	20	20
August	195	145	20	25	240	140	18	18
September	240	150	18	24	208	200	30	20
October	160	200	20	18	180	240	10	19
November	140	250	25	25	260	160	11	16
December	220	149	40	20	100	120	31	10
January	100	150	18	18	95	110	18	8
February	95	240	35	25	80	100	23	30
March	340	200	20	40	40	160	24	26
April	204	190	18	10	277	278	15	10
May	206	188	25	8	200	150	25	21
June	200	188	26	12	200	150	13	10
Totals	2,300	2,190	290	245	2,080	1,958	238	208

1889 AND 1890.	HATS.				BLANKETS.			
	Received	Issued	Received Second Hand	Issued Second Hand	Received	Issued	Received Second Hand	Issued Second Hand
July	192	80	10	6	50	30	180	140
August	142	20	12	14	50	25	200	160
September	144	100	15	12	25	30	185	140
October	24	96	8	9	-----	60	201	175
November	-----	40	4	8	100	34	185	160
December	-----	35	9	16	100	55	165	180
January	-----	20	10	13	100	40	210	165
February	38	40	23	15	100	60	220	140
March	-----	25	18	14	100	45	180	180
April	-----	16	6	4	-----	90	180	235
May	-----	16	18	10	-----	76	100	100
June	-----	12	7	11	-----	76	99	100
Totals	540	500	140	132	625	621	2,105	1,875

TABLE NO. 22--Continued.

1889 AND 1890.	CONVICT SHOES.				HICKORY SHIRTS.			
	Manufactured	Issued	Received and Hand. Sec.	Issued Hand Second	Manufactured	Issued	Received and Hand. Sec.	Issued Hand Second
July	190	180	15	12	10	9	7	3
August	180	176	12	11	11	10	6	2
September	165	180	11	6	9	8	8	1
October	140	190	9	19	8	10	5	4
November	200	140	20	8	7	8	4	2
December	190	200	10	12	9	9	8	11
January	200	190	9	14	12	11	9	3
February	160	180	24	29	6	5	3	2
March	140	200	16	11	4	6	12	11
April	160	190	9	15	15	14	11	3
May	247	100	26	23	6	9	7	1
June	120	123	24	20	7	3	5	2
Totals	2,092	2,049	185	180	104	102	85	45

1889 AND 1890.	CITIZEN SHIRTS.		SOCKS.		LAMP CHIMNEYS.		BROOMS.	
	Received	Issued	Received	Issued	Received	Issued	Received	Issued
July	12	10	368	365	144	135	108	104
August	14	6	420	423	72	140	108	110
September	16	12	288	290	444	75	108	100
October	20	9	282	275	120	450	72	90
November	10	13	420	418	212	118	60	56
December	9	10	432	431	480	210	84	80
January	12	8	576	565	244	465	72	70
February	18	12	432	440	190	240	84	75
March	8	13	432	420	244	165	84	80
April	6	9	420	431	252	245	84	60
May	10	4	192	210	144	200	60	65
June	23	20	106	95	144	202	60	70
Totals	159	126	4,368	4,363	2,690	2,645	984	960

TABLE No. 22—Continued.

The Products of the Shoe and Tailor Shops.

1889 AND 1890.	CONVICT.		CITIZEN.		1889 AND 1890.	CITIZEN.		CONVICT.	
	New Work— Pairs	Repairs— Pairs	New Work— Pairs	Repairs— Pairs		New Work— Articles	Repairs— Articles	New Work— Articles	Repairs— Articles
<i>Shoe Shop.</i>					<i>Tailor Shop.</i>				
July.....	165	40	*3 45	20	July.....	*6 54	3	680	-----
August.....	140	65	*6 48	18	August.....	*9 64	4	450	-----
September.....	180	30	*9 27	16	September.....	*8 49	2	460	-----
October.....	195	26	*8 33	12	October.....	*3 85	1	1,290	-----
November.....	185	45	*7 56	13	November.....	*4 90	1	1,110	-----
December.....	174	60	*4 27	19	December.....	*6 35	2	980	-----
January.....	189	30	*9 46	14	January.....	*8 104	3	640	-----
February.....	165	45	*10 35	16	February.....	*3 108	4	1,011	-----
March.....	182	60	*8 24	12	March.....	*4 93	3	960	-----
April.....	180	35	*9 36	11	April.....	*3 78	2	340	-----
May.....	165	20	*3 18	16	May.....	*4 85	6	420	-----
June.....	220	10	*1 18	10	June.....	*3 65	8	640	-----
Totals.....	2,140	466	490	177	Totals.....	973	39	8,981	-----

*Special orders.

TABLE No. 22—Continued.

Material Expended in Manufacture and Repairs for the Forty-first Fiscal Year.

1889 AND 1890.	CONVICT.			CITIZEN.		
	Sole Leather— Pounds	Kip Skins— Number	Nails, Screws— Pounds	Sole Leather— Pounds	Calf Skins— Number	Nails, Screws— Pounds
<i>Shoe Shop.</i>						
July.....	610	25	53	95	18	20
August.....	780	30	40	100	18	18
September.....	1,012	24	65	110	18	30
October.....	1,196	24	44	75	18	65
November.....	895	30	45	80	18	40
December.....	1,014	18	60	78	20	25
January.....	960	26	80	90	18	15
February.....	400	28	95	84	18	10
March.....	300	21	65	74	20	15
April.....	826	30	80	68	18	2
May.....	800	29	86	75	26	1
June.....	813	30	85	75	10	4
Totals.....	9,606	315	800	1,004	220	245

TABLE No. 22—Continued.

Materials Expended in Manufacture and Repairs for the Forty-first Fiscal Year.

1889 AND 1890.	CITIZEN.				CONVICT.		
	Cloth—Yards	Linings and Trimmings—Yards	Buttons—Dozen	Thread—Spools	Cloth—Yards	Buttons—Dozen	Thread—Spools
<i>Tailor Shop.</i>							
July	200	200	50	200	1,195	200	300
August	204	195	48	195	1,200	210	325
September	185	190	90	180	210	190	327
October	190	210	50	40	1,215	185	318
November	220	205	45	60	220	175	415
December	215	190	80	95	1,240	175	405
January	180	185	75	80	245	200	420
February	165	210	80	45	250	210	300
March	140	215	45	30	200	400	325
April	195	220	40	20	220	160	300
May	240	207	100	25	210	210	225
June	245	207	120	15	240	210	200
Totals	2,379	2,434	823	985	6,645	2,545	3,860

TABLE No. 23.

COMPARATIVE TABLE OF MEASUREMENTS OF PRISONERS CONFINED IN SAN QUENTIN STATE PRISON, JUNE 30, 1890.

Height of Prisoners.

No.	No.	No.	No.				
Under 5 feet.....	4	5 feet 3 $\frac{1}{2}$ inches.....	35	5 feet 6 $\frac{1}{2}$ inches.....	29	5 feet 10 $\frac{1}{2}$ inches.....	3
5 feet exactly.....	2	5 feet 3 $\frac{3}{4}$ inches.....	9	5 feet 7 inches.....	17	5 feet 10 $\frac{3}{4}$ inches.....	9
5 feet 0 $\frac{1}{2}$ inch.....	1	5 feet 3 inches.....	12	5 feet 7 $\frac{1}{4}$ inches.....	61	5 feet 10 $\frac{3}{4}$ inches.....	14
5 feet 0 $\frac{1}{2}$ inch.....	1	5 feet 3 $\frac{1}{2}$ inches.....	10	5 feet 7 $\frac{1}{2}$ inches.....	11	5 feet 10 $\frac{3}{4}$ inches.....	7
5 feet 0 $\frac{1}{2}$ inch.....	1	5 feet 4 inches.....	41	5 feet 7 $\frac{3}{4}$ inches.....	45	5 feet 10 $\frac{3}{4}$ inches.....	14
5 feet 0 $\frac{1}{2}$ inch.....	1	5 feet 4 $\frac{1}{2}$ inches.....	2	5 feet 7 $\frac{3}{4}$ inches.....	9	5 feet 10 $\frac{3}{4}$ inches.....	12
5 feet 0 $\frac{1}{2}$ inch.....	1	5 feet 4 inches.....	5	5 feet 7 $\frac{3}{4}$ inches.....	31	5 feet 11 inches.....	5
5 feet 1 inch.....	4	5 feet 4 $\frac{1}{2}$ inches.....	7	5 feet 7 $\frac{3}{4}$ inches.....	11	5 feet 11 $\frac{1}{2}$ inches.....	13
5 feet 1 $\frac{1}{4}$ inches.....	3	5 feet 4 $\frac{1}{2}$ inches.....	6	5 feet 7 $\frac{3}{4}$ inches.....	21	5 feet 11 $\frac{1}{2}$ inches.....	3
5 feet 1 $\frac{1}{2}$ inches.....	5	5 feet 4 $\frac{1}{2}$ inches.....	29	5 feet 8 inches.....	11	5 feet 11 $\frac{1}{2}$ inches.....	5
5 feet 1 $\frac{1}{2}$ inches.....	4	5 feet 4 inches.....	6	5 feet 8 $\frac{1}{4}$ inches.....	35	5 feet 11 $\frac{1}{2}$ inches.....	3
5 feet 1 $\frac{1}{2}$ inches.....	8	5 feet 4 $\frac{1}{2}$ inches.....	17	5 feet 8 $\frac{1}{4}$ inches.....	5	5 feet 11 $\frac{1}{2}$ inches.....	5
5 feet 1 $\frac{1}{2}$ inches.....	3	5 feet 5 inches.....	4	5 feet 8 $\frac{1}{2}$ inches.....	10	6 feet exactly.....	3
5 feet 1 $\frac{1}{2}$ inches.....	7	5 feet 5 $\frac{1}{4}$ inches.....	19	5 feet 8 $\frac{1}{2}$ inches.....	13	6 feet 0 $\frac{1}{2}$ inch.....	4
5 feet 1 $\frac{1}{2}$ inches.....	5	5 feet 5 $\frac{1}{4}$ inches.....	19	5 feet 8 $\frac{1}{2}$ inches.....	29	6 feet 0 $\frac{1}{2}$ inch.....	2
5 feet 2 inches.....	19	5 feet 5 inches.....	21	5 feet 8 $\frac{1}{2}$ inches.....	13	6 feet 0 $\frac{1}{2}$ inch.....	1
5 feet 2 $\frac{1}{4}$ inches.....	2	5 feet 5 $\frac{1}{2}$ inches.....	7	5 feet 8 $\frac{1}{2}$ inches.....	5	6 feet 0 $\frac{1}{2}$ inch.....	1
5 feet 2 $\frac{1}{2}$ inches.....	6	5 feet 5 $\frac{1}{2}$ inches.....	25	5 feet 9 inches.....	6	6 feet 0 $\frac{1}{2}$ inch.....	1
5 feet 2 $\frac{3}{4}$ inches.....	4	5 feet 5 inches.....	111	5 feet 9 $\frac{1}{4}$ inches.....	33	6 feet 0 $\frac{1}{2}$ inch.....	2
5 feet 2 inches.....	11	5 feet 5 inches.....	27	5 feet 9 $\frac{1}{4}$ inches.....	5	6 feet 1 inch.....	5
5 feet 2 inches.....	2	5 feet 6 inches.....	21	5 feet 9 $\frac{1}{2}$ inches.....	19	6 feet 1 $\frac{1}{2}$ inches.....	1
5 feet 2 inches.....	13	5 feet 6 $\frac{1}{4}$ inches.....	47	5 feet 9 $\frac{1}{2}$ inches.....	4	6 feet 2 inches.....	1
5 feet 2 inches.....	8	5 feet 6 $\frac{1}{2}$ inches.....	15	5 feet 9 $\frac{1}{2}$ inches.....	15	6 feet 3 inches.....	1
5 feet 3 inches.....	31	5 feet 6 $\frac{1}{2}$ inches.....	27	5 feet 9 $\frac{1}{2}$ inches.....	5		
5 feet 3 $\frac{1}{4}$ inches.....	21	5 feet 6 $\frac{1}{2}$ inches.....	21	5 feet 9 $\frac{1}{2}$ inches.....	21		
5 feet 3 $\frac{1}{4}$ inches.....	27	5 feet 6 $\frac{1}{2}$ inches.....	33	5 feet 10 inches.....	7		
5 feet 3 $\frac{1}{2}$ inches.....	9	5 feet 6 $\frac{1}{2}$ inches.....	11	5 feet 10 $\frac{1}{4}$ inches.....	15		
						Total	1,392

TABLE No. 22—Continued.

Between Temples.

No.	No.	No.	No.
3 $\frac{3}{4}$ inches ----- 9	4 $\frac{3}{4}$ inches ----- 221	4 $\frac{1}{2}$ inches ----- 23	5 $\frac{1}{4}$ inches ----- 1
4 inches ----- 13	4 $\frac{7}{8}$ inches ----- 64	4 $\frac{5}{8}$ inches ----- 3	Over 5 $\frac{1}{4}$ inches --- 1
4 $\frac{1}{8}$ inches ----- 3	4 $\frac{5}{8}$ inches ----- 173	4 $\frac{3}{4}$ inches ----- 12	No measurement 35
4 $\frac{1}{2}$ inches ----- 45	4 $\frac{9}{16}$ inches ----- 100	5 inches ----- 5	Total ----- 1,392
4 $\frac{3}{8}$ inches ----- 57	4 $\frac{3}{4}$ inches ----- 203	5 $\frac{1}{8}$ inches ----- 85	
4 $\frac{1}{4}$ inches ----- 23	4 $\frac{1}{2}$ inches ----- 151	5 $\frac{1}{4}$ inches ----- 65	
4 $\frac{5}{16}$ inches ----- 75	4 $\frac{3}{4}$ inches ----- 11	5 $\frac{1}{8}$ inches ----- 14	

Length of Middle Finger.

No.	No.	No.	No.
3 $\frac{3}{4}$ inches and less. 28	4 inches ----- 193	4 $\frac{1}{2}$ inches ----- 122	Females ----- 20
3 $\frac{5}{8}$ inches ----- 49	4 $\frac{1}{8}$ inches ----- 377	4 $\frac{3}{8}$ inches ----- 103	To be measured 15
3 $\frac{7}{8}$ inches ----- 105	4 $\frac{1}{4}$ inches ----- 124	4 $\frac{1}{2}$ inches ----- 20	Total ----- 1,392
3 $\frac{1}{2}$ inches ----- 118	4 $\frac{3}{8}$ inches ----- 97	5 inches ----- 21	

Length of Feet.

No.	No.	No.	No.
9 inches ----- 45	10 inches ----- 195	11 inches ----- 197	12 in. and over... 28
9 $\frac{1}{4}$ inches ----- 69	10 $\frac{1}{4}$ inches ----- 145	11 $\frac{1}{4}$ inches ----- 90	Females ----- 20
9 $\frac{1}{2}$ inches ----- 136	10 $\frac{1}{2}$ inches ----- 105	11 $\frac{1}{2}$ inches ----- 30	To be measured 25
9 $\frac{3}{4}$ inches ----- 95	10 $\frac{3}{4}$ inches ----- 210	11 $\frac{3}{4}$ inches ----- 12	Total ----- 1,392

Length of Forearm.

No.	No.	No.	No.
14 $\frac{1}{2}$ inches ----- 3	17 $\frac{1}{2}$ inches ----- 89	19 $\frac{3}{4}$ inches ----- 22	22 inches ----- 34
15 inches ----- 7	17 $\frac{3}{4}$ inches ----- 14	20 inches ----- 64	22 $\frac{1}{4}$ inches ----- 6
15 $\frac{1}{2}$ inches ----- 15	18 inches ----- 75	20 $\frac{1}{4}$ inches ----- 50	22 $\frac{1}{2}$ in. and over... 4
16 inches ----- 16	18 $\frac{1}{4}$ inches ----- 95	20 $\frac{1}{2}$ inches ----- 15	Females ----- 20
16 $\frac{1}{4}$ inches ----- 12	18 $\frac{1}{2}$ inches ----- 146	20 $\frac{3}{4}$ inches ----- 78	To be measured 15
16 $\frac{1}{2}$ inches ----- 34	18 $\frac{3}{4}$ inches ----- 127	21 inches ----- 98	Total ----- 1,392
16 $\frac{3}{4}$ inches ----- 24	19 inches ----- 23	21 $\frac{1}{4}$ inches ----- 24	
17 inches ----- 44	19 $\frac{1}{4}$ inches ----- 36	21 $\frac{1}{2}$ inches ----- 59	
17 $\frac{1}{4}$ inches ----- 65	19 $\frac{1}{2}$ inches ----- 35	21 $\frac{3}{4}$ inches ----- 38	

Width of Hands.

No.	No.	No.	No.
2 $\frac{3}{4}$ inches ----- 16	3 $\frac{1}{4}$ inches ----- 76	3 $\frac{5}{8}$ inches ----- 130	4 inches ----- 38
2 $\frac{5}{8}$ inches ----- 9	3 $\frac{3}{8}$ inches ----- 189	3 $\frac{1}{2}$ inches ----- 48	Over 4 inches ----- 35
3 inches ----- 20	3 $\frac{1}{2}$ inches ----- 108	3 $\frac{3}{4}$ inches ----- 81	Females ----- 20
3 $\frac{1}{8}$ inches ----- 24	3 $\frac{7}{8}$ inches ----- 118	3 $\frac{1}{4}$ inches ----- 36	To be measured 15
3 $\frac{1}{4}$ inches ----- 60	3 $\frac{5}{4}$ inches ----- 149	3 $\frac{1}{2}$ inches ----- 42	Total ----- 1,392
3 $\frac{1}{16}$ inches ----- 34	3 $\frac{3}{16}$ inches ----- 115	3 $\frac{5}{8}$ inches ----- 29	

Length of Nose.

No.	No.	No.	No.
1 $\frac{1}{8}$ inches ----- 30	1 $\frac{7}{8}$ inches ----- 101	2 $\frac{5}{16}$ inches ----- 102	2 $\frac{1}{2}$ inches ----- 96
1 $\frac{1}{4}$ inches ----- 8	1 $\frac{5}{8}$ inches ----- 130	2 $\frac{3}{8}$ inches ----- 92	2 $\frac{3}{4}$ inches ----- 60
1 $\frac{3}{8}$ inches ----- 14	2 inches ----- 4	2 $\frac{1}{2}$ inches ----- 10	2 $\frac{1}{2}$ inches ----- 8
1 $\frac{1}{2}$ inches ----- 28	2 $\frac{1}{8}$ inches ----- 236	2 $\frac{1}{4}$ inches ----- 20	Females ----- 20
1 $\frac{1}{4}$ inches ----- 14	2 $\frac{1}{4}$ inches ----- 38	2 $\frac{3}{8}$ inches ----- 10	To be measured 15
1 $\frac{3}{4}$ inches ----- 84	2 $\frac{1}{2}$ inches ----- 20	2 $\frac{1}{2}$ inches ----- 40	Total ----- 1,392
1 $\frac{3}{8}$ inches ----- 27	2 $\frac{1}{4}$ inches ----- 108	2 $\frac{3}{4}$ inches ----- 78	

Diameter of Head.

No.		No.		No.		No.	
6 $\frac{1}{8}$ inches	15	7 $\frac{3}{8}$ inches	48	7 $\frac{1}{2}$ inches	20	8 $\frac{5}{8}$ inches	12
6 $\frac{3}{8}$ inches	10	7 $\frac{7}{8}$ inches	16	7 $\frac{7}{8}$ inches	6	8 $\frac{3}{4}$ inches	5
6 $\frac{1}{2}$ inches	201	7 $\frac{1}{2}$ inches	84	7 $\frac{5}{8}$ inches	8	Females	20
7 inches	512	7 $\frac{5}{8}$ inches	6	8 inches	7	To be measured	15
7 $\frac{1}{8}$ inches	9	7 $\frac{3}{4}$ inches	14	8 $\frac{1}{8}$ inches	6		
7 $\frac{1}{4}$ inches	15	7 $\frac{1}{2}$ inches	54	8 $\frac{1}{4}$ inches	18	Total	1,392
7 $\frac{3}{8}$ inches	120	7 $\frac{1}{2}$ inches	93	8 $\frac{3}{8}$ inches	10		
7 $\frac{5}{8}$ inches	4	7 $\frac{3}{4}$ inches	4	8 $\frac{1}{2}$ inches	60		

Chest Measurement.

No.		No.		No.		No.	
30 inches	4	35 inches	120	39 inches	94	45 inches	45
31 inches	6	35 $\frac{1}{2}$ inches	10	39 $\frac{1}{2}$ inches	13	46 inches	5
32 inches	20	36 inches	114	40 inches	80	47 inches	4
32 $\frac{1}{2}$ inches	12	36 $\frac{1}{2}$ inches	12	40 $\frac{1}{2}$ inches	1	49 inches	5
33 inches	4	37 inches	180	41 inches	3	Females	20
33 $\frac{1}{2}$ inches	120	37 $\frac{1}{2}$ inches	61	42 inches	2	To be measured	15
34 inches	36	38 inches	210	43 inches	1		
34 $\frac{1}{2}$ inches	78	38 $\frac{1}{2}$ inches	111	44 inches	6	Total	1,392

THE BERTILLON SYSTEM OF MEASUREMENTS.

REPORT OF THE ASSISTANT TURNKEY.

SAN QUENTIN PRISON, June 30, 1890.

Gen. JOHN McCOMB, Warden:

SIR: In accordance with your instructions of April twenty-fifth, relative to the introduction of the Bertillon system of measurements for the identification of criminals, I beg leave to submit the following report explanatory of the process adopted, together with a compilation of tables exhibiting the result of eighty-four distinct measurements:

INSTRUMENTS AND APPARATUS.

The instruments now used are made in France with metrical divisions, and comprise sliding compasses, large size, with which to measure the foot, forearm, and the middle and little fingers, and small size, with which to measure the ear.

GRADUATED MEASURES.

One for heights, one for outstretched arms, and one for the trunk. Square to place on the top of the head while taking height and trunk measure, together with stools, tables, benches, etc.

All lineal measures are taken in the metric system in metres, centimetres, and millimetres, instead of in feet and inches, and fractions of an inch.

A metre is equal to thirty-nine inches and three hundred and sixty-eight one thousandths of an inch, American standard, or thirty-nine inches and three hundred and seventy one thousandths of an inch, English standard.

A centimetre is equal to three thousand nine hundred and thirty-seven ten thousandths of an inch, English.

A millimetre is equal to three thousand nine hundred and thirty-seven hundred thousandths of an inch, English.

In round numbers, thirteen inches equal thirty-three centimetres, or sixty-five inches equal one hundred and sixty-five centimetres and one millimetre.

The following is the order in which measurements and descriptions of prisoners are taken, the subject being barefooted and in shirt sleeves:

First—The Height.

The measurement of the prisoners standing erect.

Second—The Outstretched Arms.

The measurement from finger tip to finger tip, the arms being extended at right angles to the body.

Third—The Trunk.

The measurement from the bench to the top of the head of a person seated.

Fourth—The Length of the Head.

Measurement from the cavity at the root of the nose to the remotest point of the back of the head.

Fifth—The Width of the Head.

Measurement of the diameter from side to side, between the two points most remote from each other, situated over the ears and on a horizontal plane at right angles to the measurement of length.

Sixth—The Ear.

Measurement from the top of the rim to the lowest point of the lobe.

Seventh—The Left Foot.

Measurement from the extreme of the back of the heel to the end of the farthest projecting toe.

Eighth—The Left Middle Finger.

Measurement from the point of the knuckle to the tip of the finger, the finger being placed at right angles to the back of the hand.

Ninth—The Left Little Finger.

Same as for middle finger.

Tenth—The Left Forearm.

Measurement from the point of the elbow to the tip of the farthest projecting finger, the elbow being placed at sharp angles with the upper arm.

Eleventh—The Left Eye.

Analysis of the colors of the eye:

- (a) The color of the inner (central) circle, pigment.
- (b) The color of the extreme (peripheric) circle.
- (c) The possible confusion of the pigment (a) with an adjoining class.
- (d) Peculiarities.

Twelfth—The Nose.

- (a) The profile form of the ridge, root, and base.
- (b) The dimensions: length, projection, and breadth.
- (c) Peculiarities.

Thirteenth—The Forehead.

The inclination, apparent height and width, and peculiarities.

Fourteenth—Marks and Scars.

Nature and origin, direction or inclination, approximate dimensions, and accurate location with regard to specified points of the body.

PHOTOGRAPHED.

Two views, one a profile of right side of face and one of full face.

During the past three years about twenty penal institutions in the United States have adopted the Bertillon method of identification.

The descriptions are filed in the central office at Chicago, and in the event of subsequent arrest and remeasurement in any part of the world, the remarkable accuracy of the system makes identification absolutely certain.

CHAS. N. FISH,
Assistant Turnkey.

BERTILLON MEASUREMENTS

At State Prison, San Quentin, California, April 28 to June 30, 1890, inclusive.

Register Number	NAMES.	Head, Length.		Head, Width.		Middle Finger.		Foot.		Forearm.	
		Centim.	ML.	Centim.	ML.	Centim.	ML.	Centim.	ML.	Centim.	ML.
14109	Gunther, Frank	19		15	4	11	3	25	5	46	2
14110	Newell, Robert	20	4	16	2	11	6	23	6	45	1
14111	Forrest, Wm. C.	19	4	15	2	10	9	24	7	44	1
14112	Mahoney, Richard	19	6	15	8	12	3	26	8	48	4
14113	Williams, John	18	9	15		12	2	27	9	47	8
14114	Mier, Antone	18		15	4	10	8	25	5	45	1
14115	West, Charles	19	5	15	8	12	1	28	4	48	8
14116	Owens, B. B.	18	5	15		11	8	26	9	49	4
14117	Johnson, Edward	18	6	14	5	12	8	27	7	49	2
14118	Young, Leng	17	6	15	3	9	9	23	3	42	7
14119	Tryon, Walter	18	7	15	5	10	4	23	5	43	6
14120	Benton, Charles	20	1	14	5	11	6	26		45	4
14121	Merrill, George	19		15	1	11	2	24	8	45	2
14122	Smith, John	19	6	16	1	11	3	28	1	46	8
14123	Wilson, Frank	19	3	14	6	12		26	9	47	
14124	McCann, T. E.	19	3	15	4	11	2	26	4	46	
14125	Burlingham, James	19	4	15	4	11		25	8	47	2
14126	Foke, Wong Ah	13	5	15		10	5	24	6	43	3
14127	Rice, Lee	19	3	15	7	11	7	26	1	48	5
14128	Stewart, Ovid	22		14	7	12	4	26	8	50	2
14129	Mersnglia, Elia	18	7	15	6	11	2	26		47	2
14130	Vlansich, Joseph	18	1	15	1	10	7	25	6	44	7
14131	Alexander, M. W.	20	1	15	8	11	1	25	2	45	1
14132	Flowers, Dan	18	5	15		12	2	27	4	49	6
14133	Casey, James	19	4	15	5	10	9	25	5	43	9
14134	Haynes, William	20	6	13	9	11	6	25	9	46	
14135	Russell, John F.	20	9	16	6	12		27	7	48	6
14136	Sanborn, S.	18	9	14	6	10		23	2	40	7
14137	Sanborn, C.	18	6	15	4	10	4	23	1	42	7
14138	Brown, Billy	19	9	15	3	11	1	26	4	44	6
14139	Keats, John	18	7	14	6	11	6	26	5	47	1
14140	O'Neil, John	19		14	8	12	1	27	1	48	4
14141	Bacigalupo, Dominico	19	2	15	1	13	3	27	3	48	3
14142	Bancker, James W.	20	2	14	4	11	6	25	8	46	3
14143	Kane, John	18	4	15	2	11	4	24	6	45	6
14144	Brady, Thomas	19	6	15	6	11	3	26		45	9
14145	Kane, Joseph	18	2	14	7	11	3	26	3	44	2
14146	Long, T. R.	19	7	15	8	11	3	26	7	46	3
14147	Miller, Joseph	18	8	14	5	10	8	24	1	43	9
14148	Wilson, W.	19	4	15	2	11	7	26		46	3
14149	Smith, Frank	19	4	15	1	11	7	25	5	45	
14150	Basham, W.	18	7	15	2	11	7	26	9	48	
14151	Corlew, Charles W.	19	9	16	4	11	3	26	2	45	3
14152	Clinton, Avery	19	2	15	9	12	1	26	7	47	8
14153	Castro, Andreas	19	3	15		12	4	27	7	50	4
14154	Dover, James	19	6	14	7	12	1	27	6	48	5
14155	Meneglier, Emile	18	3	16	4	11	3	24	9	45	
14156	Bartlett, James	18	3	15	7	11	3	24	7	44	3
14157	Hing, Ah	19	1	15	1	11	1	26	1	45	7
14158	Wheeler, Charles	19	1	15	4	10	2	23	1	39	9
14159	Mendoza, Anthony	18	4	14	3	12	1	27	1	47	7
14160	Paine, W. A.	19	4	15	4	11	7	25	5	47	1
14161	Smith, Frank	18	5	14	9	11	4	25	8	48	3
14162	Wilson, Henry	19	6	14	7	12	3	26	9	48	8
14163	Henninger, William	18	2	15	1	11	7	25	3	42	4
14164	Winsly, Frank	19	4	14	8	12		26	8	47	1
14165	Martinez, Juan	18	3	14	3	11	5	25	3	46	5
14166	Hubbard, George	19	2	15	2	11	3	25	6	46	4
14167	Harmon, W. F.	19	2	15	5	11	2	25	5	45	6
14168	Olivera, Frank	19	8	15	1	11	9	25	8	45	5
14169	Madison, Myrtle	19	1	13	1	10	2	22	1	40	9
14170	Johansson, Jonas P.	18	7	15	6	11	6	25	6	45	6

BERTILLON MEASUREMENTS—Continued.

Register Number.	NAMES.	Head, Length.		Head, Width.		Middle Finger.		Foot.		Forearm.	
		Centim.	ML.	Centim.	ML.	Centim.	ML.	Centim.	ML.	Centim.	ML.
14171	Peyton, Jenette	18	8	14	2	10	2	23	7	42	6
14172	Cruz, José	18	6	15	2	11	1	26		45	4
14173	Bennett, David	19	6	15	7	12	1	28	2	48	7
14174	Clemens, Albert	19	5	15	2	11	7	25	6	47	6
14175	Homer, Charles F.	18	6	14	9	11	9	25	8	47	4
14176*	Stewart, Harry	19	4	15	7	11	8	25	6	45	
14177	Sierstedt, Charles	19	1	16		11	6	26		45	1
14178†	Thompson, A. W.	19	6	15	3	12	1	26	6	47	7
14179	Hung Chung	19	7	14	6	11	2	26	3	46	5
14180	Burke, William	18	2	14	6	10	8	23	5	42	3
14181	Reese, Frank	19	1	14		11	2	24	3	44	3
14182	King, Maria	18		13	6	10	8	22	8	43	8
14183	Yook, Jew	17	6	15	1	10	8	24	5	43	3
14184	Mullings, Henry	19	2	15	4	12	1	27	5	48	9
14185	Merkle, Margaret	18	9	15	7	10	5	23		42	8
14186	Revis, Frank	18	4	15	2	11	6	26	8	48	2
14187	Silvey, William	19	2	15	6	11	1	26	7	45	3
14188	Thompson, George	19	9	15	2	11	4	26	1	45	8
14189	Laughlin, Stephen	19	4	15	5	11	8	27	4	47	
14190	Seavey, William	19		15	6	11	6	26	1	47	4
14191	McAllister, David	20	1	15	4	12	2	28	6	43	1
14192	Byrne, W. W.	18	8	15	3	12		27		47	6

* Left middle finger badly deformed; above measurement is the right middle finger.

† Left foot partially amputated; above measurement is the right foot.

BERTILLON MEASUREMENTS—Continued.

Register Number.	NAMES.	Height.		Outstret'd Arms.	Trunk.	Ear.		Little Finger.	
		Centim.	Mil.			Centim.	Mil.	Centim.	Mil.
14109	Gunther, Frank	1 ^m 64	2	1 ^m 79	90	6	3	9	2
14110	Newell, Robert	1 66	6	1 71	91	7		8	9
14111	Forrest, Wm. C.	1 66		1 69	92	6	7	8	2
14112	Mahoney, Richard	1 75	6	1 79	96	6	5	9	3
14113	Williams, John	1 77	2	1 82	96	6	3	9	6
14114	Mier, Antone	1 63	6	1 76	86	6	4	8	6
14115	West, Charles	1 75	5	1 80	93	6	3	9	5
14116	Owens, B. B.	1 77	3	1 89	93	6		9	3
14117	Johnson, Edward	1 76	5	1 80	95	6	3	10	3
14118	Young, Leng	1 55	5	1 61	83	5	7	7	8
14119	Tryon, Walter	1 68	5	1 65	93	6	2	8	2
14120	Benton, Charles	1 66	2	1 71	91	6	2	9	1
14121	Merrill, George	1 65	4	1 70	90	6	1	8	8
14122	Smith, John	1 78	1	1 77	94	6	7	8	5
14123	Wilson, Frank	1 71	5	1 76	92	6		9	
14124	McCann, T. E.	1 75	5	1 75	95	6	5	8	6
14125	Burlingham, James	1 75		1 77	95	6	2	8	6
14126	Foke, Wong Ah	1 61	4	1 66	86	6	2	8	3
14127	Rice, Lee	1 80	3	1 84	94	6	2	9	1
14128	Stewart, Ovid	1 77	5	1 87	91	6	3	9	3
14129	Mersnglia, Elia	1 75	8	1 79	93	6	3	8	5
14130	Vlansich, Joseph	1 70	5	1 72	93	6		8	9
14131	Alexander, M. W.	1 65		1 69	88	6	4	8	5
14132	Flowers, Dan	1 75	2	1 79	92	6	1	9	3
14133	Casey, James	1 68	4	1 59	92	6	8	8	9
14134	Haynes, William	1 66	9	1 76	90	6	9	9	3
14135	Russell, John F.	1 76	7	1 81	96	6	3	9	2
14136	Sanborn, S.	1 54	5	1 53	83	5	9	7	3
14137	Sanborn, C.	1 61	1	1 57	87	5	8	7	8
14138	Brown, Billy	1 72	7	1 70	91	6	3	8	5
14139	Keats, John	1 76	6	1 83	94	6	8	9	1
14140	O'Neil, John	1 75	2	1 81	94	6	6	9	4
14141	Bacigalupo, Dominico	1 74	7	1 81	94	6	2	9	7
14142	Bancker, James W.	1 71	5	1 75	91	6	8	9	2
14143	Kane, John	1 69	5	1 75	89	6	6	8	5
14144	Brady, Thomas	1 69		1 72	93	6	2	8	6
14145	Kane, Joseph	1 64	6	1 70	91	6	2	8	5
14146	Long, T. R.	1 71	7	1 75	95	6		8	7
14147	Miller, Joseph	1 59	8	1 63	86	6		8	6
14148	Wilson, W.	1 65	3	1 69	85	6	5	9	3
14149	Smith, Frank	1 66	7	1 73	93	5	8	8	4
14150	Basham, W.	1 74	3	1 80	94	6	1	9	2
14151	Corlew, Charles W.	1 75	4	1 77	94	5	9	8	9
14152	Clinton, Avery	1 69	2	1 77	91	6	6	9	2
14153	Castro, Andreas	1 81	3	1 88	94	6	5	9	9
14154	Dover, James	1 72		1 83	89	6	2	9	2
14155	Menneglier, Emile	1 67	6	1 73	91	6	4	9	2
14156	Bartlett, James	1 62	2	1 69	87	5	6	8	6
14157	Hing, Ah	1 65	7	1 73	87	6	7	8	6
14158	Wheeler, Charles	1 59		1 56	91	6	5	7	7
14159	Mendoza, Anthony	1 77		1 78	93	5	7	9	5
14160	Paine, W. A.	1 76		1 81	95	6	2	9	2
14161	Smith, Frank	1 82	8	1 90	93	6	7	8	7
14162	Wilson, Henry	1 76	1	1 85	95	6	7	9	2
14163	Henninger, William	1 61	3	1 59	90	6	3	9	
14164	Winsly, Frank	1 63		1 80	79	5	8	9	5
14165	Martinez, Juan	1 69		1 75	89	5	8	8	9
14166	Hubbard, George	1 72	2	1 76	91	6	4	8	4
14167	Harmon, W. F.	1 72	3	1 74	93	5	6	8	7
14168	Olivera, Frank	1 62	4	1 72	87	7	2	9	
14169	Madison, Myrtle	1 48		1 51	81	5	5	8	
14170	Johansson, Jonas P.	1 70	5	1 77	91	6	8	8	9

BERTILLON MEASUREMENTS—Continued.

Register Number.	NAMES.	Height.		Outstret'd Arms.	Trunk.	Ear.		Little Finger.	
		Centim.	Mill.	Centim.	Centim.	Centim.	Mill.	Centim.	Mill.
14171	Peyton, Jenette	1 ^m 59	---	1 ^m 62	85	5	7	8	6
14172	Cruz, José	1 69	4	1 78	90	6	7	8	8
14173	Bennett, David	1 85	---	1 84	97	6	8	9	6
14174	Clemens, Albert	1 75	---	1 80	89	6	5	9	3
14175	Homer, Charles F.	1 72	4	1 82	93	6	3	8	9
14176	Stewart, Harry	1 74	---	1 74	93	6	---	9	1
14177	Sierstedt, Charles	1 67	---	1 75	89	6	9	8	9
14178	Thompson, A. W.	1 73	---	1 82	91	6	4	9	3
14179	Hung Chung	1 65	1	1 74	87	6	9	8	9
14180	Burke, William	1 61	4	1 66	89	6	3	8	5
14181	Reese, Frank	1 67	4	1 67	90	6	5	8	7
14182	King, Maria	1 62	---	1 66	87	6	1	8	1
14183	Yook, Jew	1 59	4	1 64	87	5	9	8	5
14184	Mullings, Henry	1 77	5	1 84	95	6	3	9	3
14185	Merkle, Margaret	1 56	---	1 61	82	5	4	8	3
14186	Revis, Frank	1 72	2	1 82	90	6	3	9	---
14187	Silvey, William	1 66	7	1 78	86	6	4	8	8
14188	Thompson, George	1 78	5	1 76	93	7	---	8	5
14189	Laughlin, Stephen	1 72	1	1 75	92	6	7	9	2
14190	Seavey, William	1 70	6	1 75	91	5	1	9	---
14191	McAllister, David	1 69	1	1 65	96	6	4	9	4
14192	Byrne, W. W.	1 68	4	1 79	90	6	4	9	8

PHYSICIAN'S REPORT.

JUNE 30, 1890.

To General JOHN McCOMB, Warden California State Prison at San Quentin:

SIR: While the death rate is smaller than last year, yet it has not kept within my expectations, being but two less than the previous year. This was due to the very severe weather we had in January, when the whole country was suffering from the "Grippe;" the men, while not dying from the "Grippe," were so affected by it that they never recovered; this, particularly among men who were troubled with lung difficulties. Thus, we had ten deaths in April, which was an unusual number; but you will see by the tables that this occurred among the phthysical patients almost entirely.

I think I can see the benefit of the resolution of the State Board of Prison Directors, passed about a year ago, requesting all prisoners troubled with lung difficulties to be sent to Folsom, in the decreased number of consumptives coming to this prison; there is certainly less consumption here than formerly. I have but two or three that show evidence of that trouble at present.

The only approach to an epidemic we have had is that of "La Grippe" in January, when nearly two hundred men were laid up with it. But as a convict is a creature of circumstances (one getting sick because he sees his neighbor sick) in a marked degree, I don't doubt that in many cases they were not nearly so sick as they pretended. With the unusually bad weather we had, it is fortunate that so few deaths occurred, only one dying from direct cause.

The sanitary condition of the place was never in as good condition as at the present time, due to your prompt adoption of my suggestion to have the walks asphalted, a new cesspool constructed, the ground around the swimming tank and all the ground back of the cell houses covered with bituminous rock. The putting in of a new cesspool I consider to be one of the best improvements that has been made in years. The buckets are all emptied into this every morning, thus leaving the cesspool free from this accumulation, and as the place around is all laid with bituminous rock, it is easily kept inodorous and clean by flushing, thus preventing the smell that constantly arose from it when we only had the bare bricks.

The new roofs of corrugated iron on the cell buildings have made these structures far more comfortable—as nearly perfect as it is possible to make old cells constructed without care as to sanitary conditions.

The cells have all new bunks in place of the old ones that have been torn out, making it possible to keep out the vermin, so that the men are troubled with them to a minimum degree.

The health of the prison has been about as usual; the calls have been somewhat more numerous than before, but the excuses are less than last year.

The following tables show the number of deaths, cause of death, the

month in which they died, and the number in the hospital during the month:

July, 1889—Number in the hospital, 14. L. G. Sessocovich, bronchial asthma.
 August, 1889—Number in hospital, 16. G. W. Scroggins, bronchitis.
 September, 1889—Number in hospital, 18. R. Martinez, phthisis.
 October, 1889—Number in hospital, 15. R. Morales, cystitis; Thos. Carrick, consumption; C. Mendosa, consumption; How Ah Fook, abscess on back; Wong Ah Hung, general debility.
 November, 1889—Number in hospital, 15. Jim McElarney, scrofula; Wm. Gallagher, consumption; Thos. Rifley, pneumonia; C. Quinthero, heart failure; T. Espinosa, consumption.
 December, 1889—Number in the hospital, 21. A. Johnson, rupture pulmonary artery; W. H. Stroupe, heart clot. These two men fell dead in the yard.
 January, 1890—Number in hospital, 23. Ying Sing, consumption; W. B. King, pneumonia; Thos. Finnerty, consumption.
 February, 1890—Number in hospital, 20. P. Sepulveda, pneumonia; So See Rack, consumption.
 March, 1890—Number in hospital, 16. W. Johnson, consumption.
 April, 1890—Number in hospital, 18. Jim Kahala (Indian), asthma; Chin Tong Jim, scrofula; Guy Shell, consumption; John Adam, cirrhosis of liver; John Miller, pneumonia; S. S. Hildebrandt, consumption; Ed. Hanley, consumption; M. Semenario, consumption; A. Angula, consumption; Geo. Langley, consumption.
 May, 1890—Number in hospital, 10. No deaths this month.
 June, 1890—Number in hospital, 11. Robert Smith, suicide. This prisoner caused death by severing both radial and ulnar arteries at the wrist and bleeding to death.

RECAPITULATION.

Consumption	15
Pneumonia	4
Bronchial asthma	2
Cystitis	1
Abscess on back	1
General debility	1
Scrofula	2
Heart failure	1
Rupture of pulmonary artery	1
Heart clot	1
Cirrhosis of liver	1
Asthma	1
Suicide	1
Total	32

In this connection I wish to remark on the unusual number of deaths which occurred in April. The hard weather of January found us with a large number of consumptives on hand; and although they were in the hospital and received the best care, they steadily failed, and the end came during the month of April—no less than six dying of consumption alone during that month—thus confirming my predictions to you in the matter.

In contrast with the death rate for April, I call attention to the fact that there were no deaths during May, and only one in June, and that a suicide.

But for the number of deaths in April, and from the debility caused by the epidemic, the rate for the year would not exceed 2 per cent.

On looking at the statistics I find that in the first quarter there were calls, 1,194; excused, 490. Second quarter: calls, 1,109; excused, 244. Third quarter: calls, 1,773; excused, 548. Fourth quarter: calls, 1,485; excused, 559. Making a total of 5,561 calls and 1,841 excused—this with a monthly average of 1,381 men.

We have an increased number of convicts, and a less number of deaths—the death rate this year being $2\frac{1}{3}$ per cent instead of $2\frac{1}{2}$ per cent last year.

We have had two deaths from heart disease—men who fell dead and

ought not to be charged to the sick list—and one man from suicide, making only twenty-nine deaths that ought to be charged to the sick list. With these three deducted we have a death rate of only 2 per cent.

In conclusion, I wish to thank you for many favors received, many suggestions listened to, for uniform courtesy and unfailing kindness and consideration from yourself and my brother officers.

Very respectfully,

F. C. DURANT, M.D.

REPORT OF THE WARDEN

OF THE

STATE PRISON AT FOLSOM, CALIFORNIA.

WARDEN'S REPORT.

To the honorable State Board of Prison Directors:

GENTLEMEN: I have the honor to submit herewith my annual report for the forty-first fiscal year, ending June 30, 1890, including the reports of the Deputy Warden, Physician, and Commissary, showing in detail the operations of the Folsom State Prison.

The report of the Clerk of the prison, also submitted herewith, sets forth fully the financial transactions of the prison for the year.

The last Legislature, at my request, reduced the appropriation for the support of the prison from \$250,000 for the thirty-ninth and fortieth fiscal years, to \$220,000 for the forty-first and forty-second fiscal years.

The average number of convicts on hand during the fortieth fiscal year was 488.3. For the forty-first fiscal year, just closed, we had an average of 623, an increase of 134.7. This increase was far beyond our calculations, and necessitated a slight increase in the guard force.

Under the circumstances, it is with pleasure that I am enabled to report that our expenditures have been kept within the reduced appropriation, and that we will have sufficient funds for the forty-second fiscal year without a deficiency.

As shown in detail by Table No. 8 of the Clerk's report, the net cost of maintenance for the year was \$105,241 48. Average number of prisoners on hand, six hundred and twenty-three. Per capita per diem, 45.8 cents.

This is a reduction in the per capita per diem cost of 8.8 cents from the previous year. This reduction is caused by a variety of reasons: principally by close attention to the details of expenditures, requiring contractors to supply goods fully up to the standard, and by the increased number of prisoners. As claimed in a former report, the larger the daily average of convicts the cheaper they can be cared for, and the less should be the per capita per diem cost.

By reference to Table No. 7, of the Clerk's report, it will be seen that there was a balance on hand of available cash assets, after discharging all liabilities for the year, of \$14,872 79, which, added to the appropriation of \$110,000 for the forty-second fiscal year, will afford ample resources to meet all liabilities to July 1, 1891.

During the year we cut but little stone for sale, as our force was employed on the dam and canal. We supplied the stone, in the rough, for the steps and driveway of the State Capitol grounds, and for one small private job.

The net profit of the quarry was \$1,968 98; profits of the farm, \$3,567 49; labor, \$210; making a total of earnings for the year of \$5,694 47, as shown by Table No. 4, of the Clerk's report.

The last Legislature appropriated \$112,500 for the construction of a power house to utilize the water-power of the American River, necessary wheels, machinery, etc., to operate the same, pump and pipe for irrigating purposes, and other expenses incidental thereto.

On July first there had been expended of this appropriation (Clerk's

Report, Table No. 7) \$50,986 97, leaving a balance of \$61,513 03. The foundation of the power house, by far the heaviest portion of the work, has been completed up to the water level. The double turbine wheels, six in number, are ready to go in place, and we confidently expect to utilize the power in time for irrigating next spring.

THE DAM AND CANAL.

In connection with the power house, work has progressed steadily on the dam and canal during the past year. The unusual floods and long continued high water of last winter and spring retarded the work on the dam very materially. At times the water passed over it to a depth of twenty feet. The dam stood this severe test in its unfinished condition without the slightest damage, and as it will be completed before it is called upon to stand another such test, there need be no fears of its permanence and stability.

The work taken together—the dam, canal, and power house—is of such unusual magnitude that it can only be appreciated by a personal inspection.

There has been laid in the dam, canal wall, and power house, up to the present time, over forty-four thousand cubic yards, or one million one hundred and eighty-eight thousand cubic feet of stone. There have been shipped out nearly eight thousand cars of rubble rock and decomposed granite. Sixteen thousand barrels of cement have been used.

These figures will only give an inadequate idea of the amount of labor performed since the inception of this work two years ago.

The dam proper and head gates will certainly be completed before the winter rains. That places the river under control, and leaves the balance of the work easy of accomplishment. As it takes the question of the elements entirely out of the calculation, I confidently hope to complete the State portion of this work during the early portion of next season.

It will not be amiss in this report to refer to the circumstances under which this work was recommenced two years ago by your honorable Board.

The following letter, written by myself, in response to a request from the Governor's office, covers the entire subject, and I submit it in full:

STATE PRISON, SACRAMENTO COUNTY, CAL., November 16, 1889.

Hon. M. D. BORUCK, Private Secretary:

DEAR SIR: I inclose you herewith, as per your request, copies of the propositions submitted by H. P. Livermore, President of the Folsom Water Power Company, to the Board of Directors, together with the subsequent contract made after the acceptance of the proposition. As sent you, it is taken from the official record, copied by the Clerk of the prison.

You will recollect that the proposition submitted by Mr. Livermore was in response to an invitation by Governor Waterman, sent from the prison on the eighteenth of April, 1888. The Governor, in company with Mr. Steffens, Secretary of State Hendricks, and some other gentlemen, visited the prison on that date, and, after an examination into the conditions of the contracts then existing between the State and the Folsom Water Power Company, as the successors in interest of the Natoma Water and Mining Company, and realizing the value to the State of the resultant power on the completion of the works as then proposed, he invited Mr. Livermore to meet him and the State Board of Prison Directors on the fifth day of May following for the purpose of coming to an amicable understanding that would result in the immediate prosecution and completion of the dam and canal.

To make the matter plain to you I will go back to the history of the legislation which resulted in the selection of the present site of what was intended at that time to be the

Branch State Prison; that will also throw some light upon the subsequent contracts made with the Natoma Water and Mining Company, through their agent, Mr. H. G. Livermore, which subsequently passed into the hands of his two sons, who now represent the Folsom Water Power Company.

In 1858 the Legislature authorized the Board of Prison Directors to select a site for a Branch State Prison. Ten years passed without anything being done under the provisions of that Act. The Legislature of 1868 again took up the matter, and directed the Board of Directors to select a site before the first of July, 1868, and limiting the selection to two sites, *i. e.*, Rocklin or Folsom.

The Board of Prison Directors decided to locate the Branch Prison on its present site (on the thirtieth day of June, 1868), and that day obtained from the Natoma Water and Mining Company a deed for three hundred and fifty acres of land, supposed to cover all the quarries necessary for prison purposes, and also the right to the first five feet fall of the canal. The consideration in this deed was that the State should pay \$15,000, in convict labor, to be used on said canal (upon which work had been started by the Natoma Company), and the dam necessary for the same, at the rate of 50 cents per diem for each convict capable of such work, to be paid for at the completion of said work; that is to say, the consideration from the State to the Natoma Company, *i. e.*, the convict labor aforesaid, was to be delivered to the company as soon after the completion of the prison as was practicable.

Six years passed, and still nothing was accomplished. In 1874 the Legislature passed another Act, authorizing the construction of the prison, and appropriating \$175,000 for that purpose.

Upon the proper surveys being made, it was discovered that the three hundred and fifty acres secured to the State by the deed of June 30, 1868, did not cover all the lands desired by the State, and, in fact, did not cover the lands upon which the present prison building is located.

The Board of Directors then secured another deed from the Natoma Company, for one hundred and thirty-three acres of land, the consideration being the same as in the first deed, *viz.*: \$15,000 payable in convict labor at 50 cents per diem for each convict, under the same conditions as the former deed.

The beginning of work on the prison in the fall of 1874, the failure of Contractor Miles, the cessation of work for a period of three years, are all facts you are familiar with, and it was not until July, 1880, and after a subsequent contract had been entered into with Mr. Livermore, looking to the employment of three hundred and fifty convicts, which was made a condition of the final appropriation, made by the Legislature in 1878, that the prison was completed and occupied.

Now, bear in mind, that when the prison was completed in July, 1880, the State had not paid anything for the lands so deeded, as above, nor for the quarries upon said land, nor for any other purposes; the outlay had been solely for the construction of the buildings.

In the first two contracts it was agreed and understood that upon the completion of the prison and its occupancy, the labor should be furnished for the construction of the company's dam and canal, of which the State was to receive a five-foot fall, from a thirty-foot canal, equal to about two hundred and twenty horse-power.

Prior to the occupancy of the prison, the Natoma Company had expended, as shown by their books, \$119,000, in the construction of the railroad from Folsom to the site of their dam, and in putting in the foundation for their dam, which was done in 1868.

In the fall of 1881 the Folsom Water Power Company, as the successors in interest of the Natoma Water and Mining Company, made a demand upon the Board of Directors for the labor necessary to complete their dam and canal, in accordance with the deeds heretofore made to the State. After some little delay some eighty convicts were assigned to work upon the line of the canal.

Very soon a difference arose between the Water Power Company and the Board of Directors as to the proper construction of the deeds, or grants, to the State. That is, whether the two deeds calling for thirty thousand days' labor each meant one and the same thing, or whether they were separate deeds calling for sixty thousand days' labor in the aggregate.

The Board of Directors, under the advice of Attorney-General Hart, held to the former view, which position was disputed by the Water Power Company, and ended in the latter company withdrawing their men and refusing to proceed further with the work under such conditions. Subsequently the State, through the Attorney-General, brought suit against the Water Power Company to compel them to proceed with the construction of the dam and canal, which suit was decided by Judge McFarland, of the Superior Court of Sacramento, adversely to the State. An appeal was taken to the Supreme Court by the Attorney-General, and that Court sustained the decision of Judge McFarland. It was, in effect, that the State was powerless to enforce the completion of the dam and canal.

After the decision of the Supreme Court the matter remained in abeyance, and no further attempt was made to proceed with the work until it was taken up by Governor Waterman in April, 1888.

I went to Sacramento to see him about it, and pointed out the advantages to be derived by the State by the early completion of the work. He readily grasped the situation, and paid a visit to the prison on the eighteenth of April, spoken of above.

On May fifth Mr. H. P. Livermore, the Manager of the Folsom Water Power Company, met the State Board of Prison Directors in the Governor's office in Sacramento, and,

after a long consultation, and many plans and suggestions were made by both parties, adjournment was taken to Folsom Prison, the Governor also being present, and on that evening proceedings were had of which I send you the record.

You will note that Livermore's first proposition was rejected, and he was permitted to offer a second proposition, which was far more beneficial to the State.

You will also note that in the subsequent contract no specific number of days' labor is agreed upon, for several reasons.

First, we were in this condition: the Folsom Water Power Company owned the land in front of the prison and inside of the line of the canal, which completely barred our ingress and egress to and from the prison. They also owned the railroad, without the use of which our quarries would have been of no value.

In the crude deeds and contracts originally made, there were a great many things omitted that were of absolute necessity to the State, and, especially to a large public institution of this kind; among them was the right to pump water across the lands of the company, the right of ingress and egress over their lands, the right to maintain guard posts and warehouses upon their lands, without which the working of the prisoners could not have been accomplished in the quarries, probably deemed of no importance at the time the original deeds were made. With a population of six hundred to eight hundred people, and with half a million dollars' worth of property, now owned by the State, these rights and privileges became of vital importance; and Mr. Livermore, who was also anxious to complete the dam and canal, realized that the concession of these privileges to the State was of too great a value, and held on to them with some degree of tenacity.

Again, the original deeds called for only five feet fall. In 1868, when that deed was made, that was supposed to be all that would be necessary for any use; but twenty years have made a vast change in the uses of power, and the requirements of public institutions, occasioned by the large increase of population, and particularly the use of water for irrigation, power, etc.; hence, what would have been considered amply sufficient in 1868, was comparatively insignificant in 1888; and if the State was going to construct for itself a water power, it would have been extremely bad judgment to have expended time, labor, and money upon a scheme that would have been totally inadequate to their wants; hence, it was decided by the Board, with the concurrence of the Governor, that it was better to accept the original contracts as the basis of future operations, and enlarge the same so as to fully meet the future requirements of this institution in point of power and water for irrigation and domestic use; hence, the canal was enlarged from thirty feet to fifty feet in width, and the State fall was increased from five feet to seven and thirty-three hundredths feet, giving to the State over eight hundred horse-power instead of two hundred and twenty horse-power, as was originally contemplated.

Now, in regard to the privileges secured to the State, and the protection of the rights of the State, you will observe by a close scrutiny of the contract that the State is thoroughly protected at every point.

The Water Power Company agrees to furnish all material for the construction of the dam and canal, the engineering plans and details, and to grant to the State all privileges asked by the State, viz.: The perpetual use of their railroad from the town of Folsom free of cost; the right to pump all water for irrigation and domestic use upon any portion of the said lands; the right to maintain guard towers and warehouses upon the lands of the company; the right to run sewage across their lands to the river; to obtain gravel from the bed of the river; to construct roads upon their lands, and the perpetual right of ingress and egress over their lands.

I contended then, and contend now, that outside of the water power obtained by the State, that these privileges, rights, easements, etc., were of more value to the State than all the labor the State will expend upon the dam and canal.

Until these questions of privileges and easements were settled, the claims of the Water Power Company were a constant menace to the property of the State, and, without a proper adjustment of the same, it would have ended, eventually, in the State being compelled to bring suit for a condemnation of their property, which would have involved a large outlay of money, or else the abandonment of the prison and total loss of all money heretofore expended.

You will note, also, that the entire water of the canal must flow through the State fall; or, in other words, the Water Power Company gets no water whatever, except what passes through the State fall, and that the right to that water is perpetual; hence the Water Power Company has no control whatever over the power of the State; the deed is absolute and unqualified.

You will note also the penalties attached for a failure on the part of the Water Power Company to comply with the conditions of their contract. For any failure on their part they forfeit all rights and privileges, while those granted to the State remain in full force and effect. The State, however, incurs no penalty whatever. The Water Power Company is simply dependent upon the good faith of the officers of the State to carry out their part of the contract, with no penalty attached for a failure so to do.

If the various officers of this State are at all times as zealous in guarding the State's interest as was done in this particular instance, we will certainly be fortunate beyond anything that has ever occurred heretofore. To the credit of the Board and the Governor who was instrumental in bringing this contract about, they need not be ashamed to have every line of the contract scrutinized by even the San Francisco "Chronicle."

Now, as to the value of the power to the State, and the uses that can be made of it by the State:

It is conceded that water power is worth the amount that the difference in cost between steam and water power will pay interest upon.

The "Leffell" Company, who manufacture the best waterwheels in America, with the plans and specifications of the State fall furnished them, figure that with six turbine wheels, under the conditions of the present canal, they will develop one hundred and thirty-four actual horse-power to each wheel, that would make a total of over eight hundred horse-power for the six wheels.

It is estimated that with the present price of coal and fuel in this State, each horse-power developed by steam costs for fuel alone from \$80 to \$100 per annum.

Taking the former figure as a basis, eight hundred horse-power at \$80 each per annum for fuel, would cost \$64,000 per annum; to generate the eight hundred horse-power developed by water would cost \$64,000 per annum less than if generated by steam power. Sixty-four thousand dollars per annum is good interest upon a million dollars; hence, the water power obtained by the State under the present arrangement is worth, as a business proposition, over one million dollars; such is the estimate of such eminent engineers as Colonel A. W. Von Schmidt, General Alexander, and any others who will take the trouble to examine into the question.

In addition to the value of this power, we will obtain water sufficient to irrigate our tract of five hundred acres, which of itself renders it, as an agricultural proposition, of great value. We expect, upon completion of the power, to utilize a portion for electric lights, for pumping water for irrigation and domestic use, for handling our derricks in the quarries; and, when that is accomplished, we will still have more than five hundred horse-power unused, and the Legislature will be called upon to solve the problem of how this can be best utilized.

I believe I have gone over the main points involved in this entire matter, and from what I have said, and from the contracts and propositions submitted by Mr. Livermore, you can gain an intelligent idea of the actual condition of the matter.

Anything that does not appear quite plain, I will take pleasure in elucidating at length, but I fear I have already taxed your patience to the limits, and am

Yours, respectfully,

CHARLES AULL, Warden.

At a regular meeting of the State Board of Prison Directors, held at Folsom Prison, May 5, 1888, there were present Directors Devlin, Sonntag, Scrivner, Luttrell, and DePue.

In response to invitations from his Excellency Governor Waterman, H. P. Livermore, Manager of the Folsom Water Power Company, submitted a proposition to renew the work upon the dam and canal of the Folsom Water Power Company, in conjunction with the State, said proposition dated San Francisco, May 3, 1888.

After the reading of the proposition, Director DePue moved that said proposition be rejected. The "ayes" and "noes" on this motion being demanded by Director Luttrell, were taken as follows: "Ayes," Devlin, Sonntag, Scrivner, Luttrell, and DePue. "Noes," none. Thereupon, upon motion of Director Scrivner, it was unanimously ordered that the Folsom Water Power Company be permitted to submit another proposition; whereupon, said Folsom Water Power Company, represented by H. P. Livermore, Manager of said company, submitted a written proposition, with certain documents annexed marked exhibits "A," "B," "C," and "No. 3," and made a part thereof, as follows, viz.:

FOLSOM PRISON, May 5, 1888.

Second proposition to the honorable Board of Directors of the State Prisons of the State of California:

WHEREAS, The Natoma Water and Mining Company, a corporation, did, by two several deeds, dated June 30, 1868, and June 3, 1874, duly convey to the State of California certain lands therein described, for the purpose of the erection of the present State Prison at Folsom, California, upon the terms and conditions therein expressed; and,

Whereas, The said State did, on the twenty-ninth day of January, 1878, enter into a certain other contract with one H. P. Livermore, for the purpose of giving employment to the prisoners confined in the State Prison at Folsom, all of which deeds and contracts are now subsisting, valid and binding agreements by and between said parties and their successors in interest, copies of which are hereunto annexed, marked, respectively, exhibits "A," "B," and "C," and,

Whereas, It appears from said contracts and other proceedings of the State and its agents and by all prior legislation on the subject, that it was and always has been the

desire and intention of the State and of its officers and agents, to aid in the construction of a dam and suitable canal or canals on the left bank of the American River, as aforesaid conveyed to the said State, and of thereby acquiring a valuable and permanent water power for the uses and purposes of the State; and,

Whereas, By reason of unforeseen obstacles beyond the control of the several parties to the said contract, they have been unable to execute and complete the same according to the original intent of said parties, particularly having been unable to build and construct said canal or canals, etc., as was originally contemplated; and,

Whereas, The said State did immediately upon the execution and delivery of said deeds take possession of the lands so conveyed, and ever since have, and does now, occupy and possess the same under grant of said deeds, but has not paid the consideration therein agreed to be paid for the same; and,

Whereas, The undersigned is now the owner by assignment of all rights and privileges conferred by said agreements, and each and all of them, and is now desirous of proceeding with the said work of construction to completion of said canal or canals under and pursuant to and by virtue of said agreements, and in execution and fulfillment thereof, in order that it may have and enjoy the consideration which is agreed to be paid to it or its grantors by said contracts; and,

Whereas, The said State has heretofore taken possession of, and does now occupy and possess many rights, privileges, and easements and properties belonging to the undersigned, without its consent and adversely to its interests, and all of which will more fully appear from map "Exhibit 3" and the accompanying report of H. T. Knight, reference to which is hereby specially made as a part hereof; and,

Whereas, The occupation of said last named rights, privileges, and properties by the said State is liable to result in various trouble and litigation, unless an adjustment thereof is amicably concluded; and now, therefore, in the condition of the premises, and for the purpose of carrying out said agreements, and to conclude an equitable adjustment of all the matters heretofore referred to, and all matters incidental thereto, the said undersigned, the said Folsom Water Power Company, hereby submits to your honorable Board the following, viz.:

First—If the State will furnish the said company the labor necessary to construct the said dam, and the said canal along the lands of the said State described in said deeds and pertaining to the said canal, down to the point known and described in the plans and specifications of said Knight as "Robbers' Ravine Mud Sink."

Second—The said dam shall be constructed in accordance with the plans and specifications heretofore made by the said Knight (which are filed herewith), reference to which is hereby made as a part hereof.

Third—The said canal shall be forty feet wide on the top, and thirty feet wide on the bottom; and a sufficient depth to carry water eight feet deep on a grade of one in two thousand feet—and in accordance with the maps, plans, and specifications made by the said Engineer Knight (and filed herewith), reference to which is hereby made as a part hereof.

Fourth—The undersigned will, by proper contracts and conveyances, give to the State the exclusive and complete use of the power resulting from the first fall, which shall be seven and thirty-three hundredths feet fall, and the privilege of raising by pumps or other means from the canal whatever water may be deemed to be necessary for the use of the said Folsom Prison by the Warden of said prison, or other officer in charge thereof, or as such Warden or other officer may deem necessary or beneficial or useful in and about said prison, or any of the prison buildings, or in or upon any of the lands of the State, for irrigation or other purposes, and said preparation and use being in all cases so carried by said Warden or other officer of said prison as to prevent wastage, as far as possible, and such preparation or use shall always be reasonable, useful, and economic; and nothing herein contained shall be so construed as to permit said Warden or other officer in charge of said prison to make any unnecessary, useless, or wasteful use or preparation of said water, and no such water shall be drawn from the canal by any officer of the State to be used outside or beyond the lands of the said State without the consent of the said undersigned.

Fifth—The said company shall, by proper conveyance, grant to the said State the privilege of maintenance in their present position, in so far as they do not require to be removed to allow the proper construction of its canal, all guard towers and other buildings and improvements which are now standing or located on any of the lands or premises of the said company.

Sixth—The said company will, by proper contracts, agree to maintain its present railroad from the town of Folsom to the said dam as now located, and give to the State the free use thereof, but the said State shall, at its own cost, keep the same in repair.

Seventh—The said company shall furnish, at its own cost, all plans, surveys and specifications, and engineering details for the entire work, and in all respects the character and quality of material and the method of construction shall be under the exclusive supervision of the engineer placed in charge of the work by the company; but none of the employés of the said company shall, in any manner whatever, interfere with the absolute management and control of the said laborers engaged in the work of constructing the said dam and canal—it shall always be under the exclusive control of the employés of the said State.

Eighth—The plans and specifications herein filed and herein referred to, may be hereafter changed or modified from time to time, by and with the consent of the State, which shall be expressed by a resolution of the said Board of Directors of said State Prison, and

duly entered on the records and by and with the written consent of the undersigned, but not otherwise.

(Signed:)

FOLSOM WATER POWER COMPANY,
Per HORATIO P. LIVERMORE, Manager.

Then follows "Exhibit A," deed from the Natoma Water and Mining Company to the State of California, dated the thirtieth day of June, A. D. 1868, in consideration of fifteen thousand dollars (\$15,000), payable in convict labor, rated at 50 cents per diem for each convict, making a grant of three hundred and fifty acres of land (a portion of the Rancho Rio de los Americanos), fully described, etc., duly verified by the proper officers of said company.

Then follows "Exhibit B," deed from the Natoma Water and Mining Company to the State of California, dated the third day of June, A. D. 1874, in consideration of fifteen thousand dollars (\$15,000), payable in convict labor at the rate of 50 cents per diem for each convict, granting one hundred and thirty-three and ninety-two one hundredths acres, more or less, being a portion of the Rancho Rio de los Americanos, duly verified by the proper officers of the said Natoma Water and Mining Company.

Then follows "Exhibit C," contract and bond, dated the twenty-ninth day of June, 1873, between William Irwin, Governor of the State of California, James A. Johnson, Lieutenant-Governor of said State, and Thomas Beck, Secretary of said State, constituting the Board of Prison Directors of said State, party of the first part, and H. G. Livermore, of the said State of California, party of the second part.

Said contract was made in pursuance of an Act of the Legislature entitled "An Act to provide for the completion of the Branch State Prison at Folsom," approved April 1, 1878, and provides that the said party of the second part, H. G. Livermore, shall, upon the completion of the said Branch Prison at Folsom, take from the State and employ three hundred and fifty convicts, daily, for a period of five years, for which the said party of the second part agrees to pay to the State a compensation of 50 cents per capita per diem; the said contract, made in pursuance of the said Act of the Legislature, was required by said Act to enter into the proper sureties before the money appropriated by said Act could be used for the completion of the said Branch Prison. The contract is duly signed by William Irwin, Governor, J. A. Johnson, Lieutenant-Governor, and Thomas Beck, Secretary of State, parties of the first part, and H. G. Livermore, party of the second part.

"Exhibit No. 3" consists of a map and plan of the proposed dam and canal, also showing the encroachments of the State upon the property of the Folsom Water Power Company, and extracts from the report of Engineer H. T. Knight to the Folsom Water Power Company as to the encroachments made on the property of the company by the works of the State Prison at Folsom, according to the survey made March 8, 1887.

Upon the reading of the foregoing proposition and exhibits, Director Scrivner offered the following resolution:

Resolved, That the second proposition of the Folsom Water Power Company, dated May 5, 1888, be accepted, and that the Warden of the State Prison at Folsom be and he is hereby directed and instructed to proceed with all reasonable diligence to furnish the necessary labor to construct to completion the dam and canal mentioned in said proposition of said company from its dam on said American River down to a point known as Robbers' Ravine Mud Sink, on the line of said canal, pursuant to the contracts referred to in said proposition, and in accordance with the plans and specifications of the said

H. T. Knight, as they may be enlarged and revised and filed with said proposition, or as they may hereafter, from time to time, be amended, with the consent of the respective parties; *provided*, said Water Power Company shall, within ten days from date, execute in due form a contract also this day submitted.

On the question of the adoption of this resolution, the "ayes" and "noes" being called for by Director Luttrell, the "ayes" were Directors Devlin, Sonntag, Scrivner, Luttrell, and De Pue; "noes," none. The resolution was then declared adopted. The Board then adjourned.

On the twelfth day of May following, and in pursuance of the proposition submitted by the Folsom Water Power Company, and accepted by the State Board of Prison Directors, the following contract was executed by the Folsom Water Power Company, and placed "in escrow" with S. G. Murphy, President of the First National Bank of San Francisco: Deed—The Folsom Water Power Company to the State of California, May 12, 1888. Filed May 21, 1888:

WHEREAS, The undersigned has this day submitted to the Board of Directors of the State Prisons of the State of California a certain proposition with reference to the completion of the dam and canal of the undersigned, situate on the American River, adjacent to the lands of the State of California, at the State Prison at Folsom, which said proposition has been duly accepted by said Board of Directors; and, whereas, by said proposition, the said undersigned promised and agreed to duly execute proper conveyance for certain rights, privileges, easements, immunities, and properties therein specified and referred to, reference to which said proposition now on file in the Clerk's office at the State Prison at Folsom, California, is hereby specifically made.

Now, therefore, for the purpose of fully carrying out said proposition on the part of the undersigned, and in consideration of the sum of one dollar, and of other good and valuable considerations, the receipt of which is hereby acknowledged, the undersigned, the Folsom Water Power Company, a corporation organized under the laws of the State of California (it being thereunto duly authorized by a resolution of its Board of Directors), does, by these presents, grant, assign, transfer, and convey unto the State of California and to its successors and assigns, all hereinafter described rights, privileges, easements, immunities, and properties, both real and personal, to wit:

First—The said State of California shall forever have the right to maintain the wall of the main prison yard of the Folsom Prison, as it now stands, on the line of the prison yard, a portion of the same being upon the lands of said party of the first part, together with the right to repair, reconstruct or improve the same from time to time as the Board of Directors or the Warden of said prison may deem advisable. And the said party of the first part hereby grants unto the party of the second part all the land situate on the inside of said wall; also, so much of the retaining wall running southerly from the southwest corner of the prison yard as will not interfere with the proper construction of the proposed canal.

Second—Also the right to maintain on the lands of the party of the first part a guard post, known as the westerly guard post, situate on the banks of the American River, opposite the gateway entering the main quarry of the prison, and on the outside of said canal; also the right to maintain such other guard stations on the lands of said party of the first part as may be deemed necessary for the proper protection of said prison, provided the same shall not in any way interfere with the construction or maintenance of said canal.

Third—Also the right to maintain on the lands of the said party of the first part a freight warehouse for the use of said prison, at a suitable point contiguous to the railroad track, which shall not, however, interfere with the construction or maintenance of said canal.

Fourth—Also the right to lay and maintain sewers or sewer pipe beneath the bottom of said canal, leading from the prison to the American River, said sewer pipe to be so constructed as to in nowise impair the said canal.

Fifth—And the said party of the first part agrees to maintain its present railroad running from the town of Folsom to the said prison, and permit the said State to use the same at all times at its pleasure, for all purposes and in any manner it may desire, free of cost, or any charge whatever, or without any cost to any one dealing with the State, so far as the State has any beneficial interest therein, the said State to keep the same in repair at its own expense.

Sixth—Said State shall also have the right to construct and maintain across, along, and over the lands of said party of the first part such pipes and aqueducts as it may desire for the purpose of carrying water from the said American River to the said lands of the said State, and to any other buildings situate thereon; *provided*, the same shall be constructed and maintained as not to interfere with the said canal.

Seventh—The State shall have the right to take from the bed or banks of the American River all sand or gravel that may be required for use upon any of the said lands of said State, or in making any improvement, or in the construction of any buildings thereon.

Eighth—The State shall have the right to remove from the rock quarries of the State, on the lands of the State, all dirt or refuse rock, and carry or transport the same over the lands of the party of the first part by such means as may be most expedient, and deposit or dump the same on the outside of the canal, on the banks of the river, but not in any wise in so doing to interfere with said canal.

Ninth—The State shall have the perpetual right of ingress and egress to and from said prison over the lands of said party of the first part, along and upon such roads as may be necessary therefor, which said roads shall also be open to the use of the party of the first part, but shall be constructed and maintained and kept in repair by the said State; but the same shall be constructed and maintained at such points as will not impair the safety of said canal, nor interfere with the flow of water of said canal, nor otherwise impair the beneficial use of the property of said party of the first part; and, where it is necessary to cross said canal, good and substantial bridges shall be constructed and maintained by the State, spanning the water without obstructing its flow.

Tenth—The said State shall also have the right to construct at first fall, upon and about said canal and upon the lands and premises of the party of the first part adjacent thereto, if necessary, such waterwheels and structures for utilizing the power of said first fall as may be deemed necessary under the aforesaid plans of Engineer H. T. Knight, by said State, its officers, or agents, for the purpose of utilizing said water power in such manner and for such purposes as it or they may deem most expedient.

But all such utilization of the power of the first fall by the State shall be so devised and constructed as not to interfere in any respect with the onward, undiminished, and unretarded flow of the water through the continuation of said canal after said first fall.

Eleventh—The said party of the first part hereby grants to said State the exclusive and perpetual use of all power resulting from the first fall located opposite to or in the prison yard; such power to be used and appropriated by said State in any manner and for any purpose it may see fit connected with the State Prison, or other public works, or with any of the State lands or improvements at Folsom, together with the privilege of raising by pumps or other means from said canal at such first fall whatever water it may be deemed to be necessary for the use of said Folsom Prison by the Warden of said prison or other officer or officers in charge thereof; or whatever water such officer or officers may deem necessary or beneficial or useful in and about said prison, or any of the said prison buildings, or in or upon any of the lands of the State for irrigation or other purposes; such appropriations and use being in all cases so guarded by said Warden or other officer in charge of said prison as to prevent wastage, as far as possible, and such appropriation and use shall be reasonable, useful, and economical; but nothing herein contained shall be so construed as to permit such Warden, or other officers in charge of said prison, to make any unnecessary, useless, or wasteful use or appropriation of any such water; and no such water shall be drawn from said canal by any officer of the State to be conveyed or used outside or beyond the lands and improvements of said State without the consent of the said party of the first part.

Twelfth—The said State shall always have the right to enlarge said dam and canal so as to increase the power of said first fall at its own cost and expense; *provided* always that such increased flow of water be allowed to pass on from said first fall as hereinbefore provided; and *provided*, that such enlargement shall in nowise impair the permanence, stability, and reliability of said dam and canal.

Any enlargement of said dam made, as hereinbefore provided by the State, for the increase of its power at first fall, which shall by reason of overflow of back water, involve damage to land above said dam, or purchase thereof, shall be at the exclusive cost and expense of said State.

It is further agreed by said party of the first part that it will proceed without unnecessary delay with the work of constructing the dam and canal, in accordance with the said maps, plans, and specifications of H. T. Knight, as enlarged or revised (so as to give the fall and water supply hereinbefore stated), filed with said propositions, and will prosecute the same with reasonable diligence until the same is completed. That it will, at all times, furnish the materials, tools, implements, and machinery necessary to be used and consumed in the construction thereof, and in sufficient quantities, and as rapidly as may be required by the Warden of said State Prison to keep constantly employed, to the best advantage, such number of men as the said Warden may, from time to time, designate and place upon such work in fulfillment of the State's contract to furnish labor for the completion of said dam and canal of the party of the first part.

The neglect or failure of the party of the first part to faithfully keep all the executory provisions hereof shall render null and void all previous contracts and agreements on the part of the State with the assignors, or predecessors in interest, of said party of the first part, and referred to in said proposition; and said party of the first part shall also lose all rights hereunder; but the grants to the said State shall forever remain in full force and effect.

In witness whereof, and by virtue of authorization of a resolution thereto empowering, duly passed by the Board of Directors of the Folsom Water Power Company, the said company has caused these presents to be signed by its President and Secretary, and the corporate seal of the company to be affixed hereunto on this twelfth day of May, A. D. 1888.

THE FOLSOM WATER POWER COMPANY.

By CHARLES E. LIVERMORE, President.
HORATIO P. LIVERMORE, Secretary.

[SEAL.]

On the same date, to wit: May 12, 1888, the following "agreement of deposit in escrow" was entered into between the Board of Directors and the Folsom Water Power Company:

WHEREAS, The Folsom Water Power Company has, on this the twelfth (12th) day of May, A. D. 1888, made a certain conveyance to the State of California of various rights, privileges, easements, immunities, and properties connected with the State Prison at Folsom; and, whereas, the condition of said conveyance is (in accordance with proposals submitted to the honorable Board of State Prison Directors by the Folsom Water Power Company at Folsom Prison, on the fifth day of May, 1888, as more fully appears from the records of said Folsom Prison), that the Warden of said Folsom Prison shall furnish all the labor required to complete the construction of said company's dam; also, to complete the said company's canal down to the point designated in the surveys and plans of said canal as "Robbers' Ravine Mud Sink."

Now, therefore, it is hereby understood and agreed that the hereinbefore mentioned conveyance of the Folsom Water Power Company shall be placed in escrow in the hands of S. G. Murphy, President of the First National Bank of San Francisco, or his successor, to be by him held until the hereinbefore specified labor shall have been fully rendered and performed, thereby discharging the consideration due to the said company for such conveyance, then to be delivered to the Chairman of the Board of State Prison Directors.

(Signed by the President and Secretary of the Folsom Water Power Company and State Board of Prison Directors.)

Said contract or deed was deposited with S. G. Murphy upon the day mentioned, to be delivered to the State upon the completion of the said work.

The report of the Deputy Warden shows that two hundred and twelve convicts have been discharged, and three hundred and twenty-eight received during the year—an increase of one hundred and sixteen. As the San Quentin Prison held its own during the year, this number, one hundred and sixteen, represents the increase of the convict population of the State during that period. If this rate continues, it will not take long for the two State Prisons to be overcrowded with prisoners. However, the completion of the Preston School of Industry, at Ione, and the Whittier Reform School, will relieve the prisons of many youthful criminals, who should never have been sent to a State Prison to mingle indiscriminately with the older and more hardened.

As the limit of our cell and dining-room capacity has been reached, I would recommend that the ensuing Legislature make provisions for building cells in the east wing of the prison building, now unoccupied, and also for building additional dining-room and kitchen facilities.

The new wing will accommodate with cell-room four hundred convicts, which, added to the number now on hand, would make over one thousand prisoners. All of the best penological authorities agree that one thousand is the maximum that should be congregated in one prison. There are many reasons for this: the principal one is, that when you get above that number, it precludes the possibility of the Warden and officers knowing personally each convict, which is essential to any intelligent effort at discipline or reformation. The Warden must personally know the peculiar mental and physical characteristics of a prisoner, else he cannot exercise proper disciplinary or reformatory influences over him; and, except for the matter of economy, a much less number than one thousand would be preferable.

For kitchen and dining-room, economy dictates more spacious accommodations than we now have.

The percentage of waste (the key to extravagance in all large institutions) is much less where you have an abundance of room to prepare and properly handle the food. That you cannot do if the kitchen is

cramped, and the range limited. The result is, badly cooked food that is not eaten, and goes to waste.

PHYSICIAN'S REPORT.

The report of Dr. T. B. Eagle will be found interesting and instructive. But three deaths occurred during the year, with an average of six hundred and twenty-three prisoners, which is a percentage of 4.81 in a thousand. A comparative statement of other prisons in the United States, taken from the various reports at hand, for the last two years, shows that the Folsom Prison is down to the minimum in point of mortality. This has been repeatedly shown by the reports of the last three years, and I trust that such expressions as "sending a convict to the Folsom Prison to die," may not be heard again in this State.

To the close attention given the sick by the physician, I attribute the surprisingly low rate of mortality.

In conclusion, I desire to thank your honorable Board for the many courtesies extended during the year.

The officers and guards have been unremitting in their devotion to the interests of the prison.

Their valuable assistance has materially lightened my labors, and assisted in maintaining good order among the prisoners.

Respectfully submitted.

CHARLES AULL,
Warden Folsom State Prison.

DEPUTY WARDEN'S REPORT.

STATE PRISON AT FOLSOM, CALIFORNIA, }
July 1, 1890. }

Hon. CHARLES AULL, Warden State Prison at Folsom:

DEAR SIR: I herewith beg to submit my report, in tabular form, for the fiscal year ending June 30, 1890.

Very respectfully,

W. H. ROBINSON,
Deputy Warden.

TABLE No. 1.

Prison Account from 1881 to June 30, 1890.

	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	Total.
Prisoners received by order of Court	96	85	131	217	230	225	150	152	241	265	1,792
Pardons revoked			1								1
Escapes recaptured	2	5		3	1	3	3	3	3	2	25
Returned from Insane Asylum								1	1	1	3
United States prisoners received					1		1	1	1	2	6
Returned by order of Court			2	2	2	1				1	8
Received by transfer from San Quentin	253	60		50	2	4	1	7	11	51	439
Returned convict witness	2	1	9	4	6	2	4	2	5	6	41
Total received	353	151	143	276	242	235	159	166	262	328	2,315
Discharged per Act	36	114	93	75	48	42	69	80	23	42	622
Discharged per Act and restored					32	71	80	88	83	93	447
Pardoned by Governor	1	3	11	11	11	1	8	4	9	1	60
Discharged by commutation		1	8	3	22	16	13	1	1	2	67
Discharged by order of Court		2								1	3
Escaped	6	4	4	6	4	2	2	2	3	3	36
Died and killed	3	6	13	7	7	7	15	7	6	3	74
Killed while attempting to escape	1	1			1					1	4
Sent to Insane Asylum		1	2	2		2		7	3	3	20
Taken out as a witness	2	2	9	4	6	2	4	2	5	6	42
Taken out for a new trial	1	4	1	2	5	4	2		1	4	24
Suicided	1			1	1	2	1				6
Taken out for trial on a new charge				2	1					1	4
Taken out on writ of probable cause				1	2						3
Taken out on writ of habeas corpus			2	3	1			1		1	8
Taken out for trial on additional charge	1										1
Taken out on certificate of probable cause								1		1	2
Taken out by order of Court	3										3
Conditionally pardoned	1		1	1	3						6
Transferred to San Quentin					3	3	4	157		50	217
Killed by fellow convict		1									1
Total discharged	56	139	144	118	147	152	198	350	134	212	1,650

TABLE No. 2.

Recapitulation of Received and Discharged Prisoners, from July 1, 1889, to June 30, 1890.

MONTH.	By Commitment.	United States Prisoners Received.	Escape Returned.	Remanded by Order of Court.	Transferred from San Quentin.	Witness Returned.	Returned from Insane Asylum.	Total Received.
1889—July	19							19
August	39			1				40
September	19					1		20
October	34	1				2		37
November	31					1		33
December	15					1		16
1890—January	22		1					23
February	17							17
March	26		1		50			77
April	19							19
May	15	1			1			17
June	9						1	10
Totals	265	2	2	1	51	6	1	328

MONTH.	Discharged per Act and Restored.	Discharged per Act.	Pardoned by Governor.	Committed by Governor.	Escaped.	Taken out for a New Trial.	Taken out for Trial on a New Charge.	Taken out on Certificate of Probable Cause.
1889—July	9	2			1			
August	4	5						
September	7	4				1		
October	14	4						
November	8	3						
December	14	2		1		1		
1890—January	8	1	1		1			
February	8	9					1	
March	3	3			1			1
April	5	5						
May	9	3		1				
June	4	1				2		
Totals	93	42	1	2	3	4	1	1

TABLE No. 2—Continued.

MONTH.	Taken out as a Witness	Taken out on a Writ of Habeas Corpus	Discharged by Supreme Court	Transferred to Insane Asylum	Died in Hospital	Killed while Attempting to Escape	Transferred to San Quentin	Total Discharged
1889—July					1			13
August		1						10
September	1			3	1			17
October	3							21
November	1							12
December	1				1			20
1890—January			1					12
February								18
March							50	58
April						1		11
May								13
June								7
Totals	6	1	1	3	3	1	50	212

TABLE No. 2—Continued.

Number of Prisoners on Hand on the last day of each month for Fiscal Year ending on the thirtieth day of June, 1890.

MONTH.	Number.
1889—July	555
August	585
September	588
October	604
November	625
December	621
1890—January	632
February	631
March	650
April	658
May	662
June	665
Daily average first half fiscal year	596.3
Daily average second half fiscal year	649.7
Daily average for fiscal year	623.0

TABLE No. 3.

Nativity of Prisoners.

NATIVITY.	No.	Per Cent.	NATIVITY.	No.	Per Cent.
<i>United States.</i>			<i>Foreign.</i>		
California	145	21.80	Austria	6	.90
Colorado	3	.45	Australia	4	.60
Connecticut	5	.75	Bavaria	1	.15
Dakota	1	.15	British Columbia	1	.15
District of Columbia	1	.15	Canada	11	1.66
Florida	1	.15	Central America	1	.15
Georgia	2	.30	Chili	1	.15
Illinois	26	3.93	China	33	4.97
Indiana	6	.90	Cuba	1	.15
Indian Territory	1	.15	Denmark	1	.15
Iowa	6	.90	England	23	3.46
Kentucky	10	1.50	France	10	1.50
Louisiana	3	.45	Germany	36	5.42
Maine	8	1.20	Greece	1	.15
Maryland	7	1.05	Holland	1	.15
Massachusetts	17	2.56	Ireland	41	6.17
Michigan	10	1.50	Italy	4	.60
Minnesota	2	.30	Japan	3	.45
Mississippi	1	.15	Lower California	1	.15
Missouri	25	3.77	Malta	1	.15
Nebraska	1	.15	Mexico	14	2.11
Nevada	2	.30	New Zealand	2	.30
New Jersey	5	.75	Nova Scotia	1	.15
New York	64	9.62	Poland	1	.15
North Carolina	1	.15	Portugal	1	.15
Ohio	16	2.41	Russia	3	.45
Oregon	3	.45	Scotland	5	.75
Pennsylvania	29	4.37	South America	2	.30
Rhode Island	2	.30	Sweden and Norway	10	1.50
South Carolina	1	.15	Switzerland	1	.15
Tennessee	5	.75	Tahiti	1	.15
Texas	4	.60	Turkey	1	.15
Vermont	7	1.05	West Indies	3	.45
Virginia	8	1.20			
Washington	1	.15			
West Virginia	2	.30			
Wisconsin	8	1.20	Totals	665	100.00

RECAPITULATION.

Native born	439 or 66.01 per cent.
Foreign born	226 or 33.99 per cent.
Totals	665 or 100.00 per cent.

TABLE No. 3—Continued.

Nativity of Fathers of Prisoners.

NATIVITY.	No.	Per Cent.	NATIVITY.	No.	Per Cent.
<i>United States.</i>			<i>Foreign.</i>		
Alabama.....	1	.15	Africa.....	1	.15
Arizona.....	1	.15	Austria.....	4	.60
Arkansas.....	2	.30	Australia.....	3	.45
California.....	31	4.67	Azores Islands.....	1	.15
Colorado.....	1	.15	Belgium.....	1	.15
Connecticut.....	4	.60	Canada.....	7	1.05
District of Columbia.....	1	.15	Central America.....	1	.15
Florida.....	1	.15	Chili.....	2	.30
Georgia.....	3	.45	China.....	33	4.97
Illinois.....	6	.90	Denmark.....	2	.30
Indiana.....	1	.15	East Indies.....	1	.15
Indian Territory.....	1	.15	England.....	42	6.32
Iowa.....	1	.15	France.....	18	2.71
Kansas.....	1	.15	Germany.....	55	8.27
Kentucky.....	21	3.16	Greece.....	1	.15
Louisiana.....	3	.45	Holland.....	1	.15
Maine.....	8	1.20	Ireland.....	127	19.10
Maryland.....	4	.60	Italy.....	6	.90
Massachusetts.....	18	2.71	Jamaica.....	1	.15
Michigan.....	3	.45	Japan.....	3	.45
Minnesota.....	1	.15	Malta.....	1	.15
Mississippi.....	2	.30	Mexico.....	24	3.61
Missouri.....	11	1.66	New Brunswick.....	2	.30
Montana.....	1	.15	Nova Scotia.....	1	.15
Nebraska.....	1	.15	Portugal.....	3	.45
Nevada.....	1	.15	Russia.....	5	.75
New Hampshire.....	2	.30	Scotland.....	11	1.66
New Jersey.....	1	.15	South America.....	1	.15
New York.....	59	8.87	Spain.....	4	.60
North Carolina.....	4	.60	Sweden and Norway.....	12	1.81
Ohio.....	16	2.41	Switzerland.....	2	.30
Oregon.....	1	.15	Turkey.....	1	.15
Pennsylvania.....	26	3.91	Wales.....	3	.45
Rhode Island.....	1	.15	West Indies.....	1	.15
South Carolina.....	1	.15	Unknown.....	2	.30
Tennessee.....	8	1.20			
Texas.....	1	.15			
Utah.....	1	.15			
Vermont.....	3	.45			
Virginia.....	26	3.91			
West Virginia.....	1	.15			
Wisconsin.....	1	.15			
Unknown.....	1	.15	Totals.....	665	100.00

RECAPITULATION.

Native born.....	282 or 42.40 per cent.
Foreign born.....	383 or 57.60 per cent.
Totals.....	665 or 100.00 per cent.

TABLE No. 3—Continued.

Nativity of Mothers of Prisoners.

NATIVITY.	No.	Per Cent.	NATIVITY.	No.	Per Cent.
<i>United States.</i>			<i>Foreign.</i>		
Alabama.....	1	.15	Africa.....	1	.15
Arkansas.....	1	.15	Argentine Republic.....	1	.15
California.....	45	6.78	Austria.....	5	.75
Connecticut.....	7	1.05	Australia.....	2	.30
District of Columbia.....	2	.30	Belgium.....	1	.15
Florida.....	1	.15	Canada.....	6	.90
Georgia.....	3	.45	Central America.....	1	.15
Illinois.....	8	1.20	Chili.....	2	.30
Indiana.....	2	.30	China.....	33	4.97
Indian Territory.....	1	.15	Cuba.....	1	.15
Iowa.....	1	.15	Denmark.....	3	.45
Kentucky.....	19	2.86	England.....	35	5.26
Louisiana.....	1	.15	France.....	20	3.01
Maine.....	5	.75	Germany.....	50	7.52
Maryland.....	4	.60	Greece.....	1	.15
Massachusetts.....	24	3.61	Ireland.....	136	20.45
Michigan.....	2	.30	Italy.....	5	.75
Mississippi.....	2	.30	Jamaica.....	1	.15
Missouri.....	8	1.20	Japan.....	3	.45
New Hampshire.....	1	.15	Malta.....	1	.15
New Jersey.....	2	.30	Mexico.....	22	3.31
New York.....	49	7.37	New Brunswick.....	1	.15
North Carolina.....	4	.60	Portugal.....	2	.30
Ohio.....	18	2.71	Russia.....	3	.45
Pennsylvania.....	23	3.46	Scotland.....	17	2.56
Rhode Island.....	2	.30	Siberia.....	1	.15
South Carolina.....	2	.30	South America.....	1	.15
Tennessee.....	9	1.35	Spain.....	6	.90
Texas.....	1	.15	Sweden and Norway.....	11	1.66
Vermont.....	2	.30	Switzerland.....	2	.30
Virginia.....	25	3.77	Turkey.....	1	.15
Washington Territory.....	1	.15	Wales.....	3	.45
West Virginia.....	1	.15	West Indies.....	1	.15
Unknown.....	7	1.05	Unknown.....	2	.30
			Totals.....	665	100.00

RECAPITULATION.

Native born.....	284 or 42.71 per cent.
Foreign born.....	381 or 57.29 per cent.
Totals.....	665 or 100.00 per cent.

TABLE No. 4.

Classification of Crime.

CRIME.	No.	CRIME.	No.
Accessory to burglary	1	Counterfeiting	2
Arson	1	Crime against nature	1
Arson, 1st degree	2	Desertion and theft	1
Arson, 2d degree	4	Embezzlement	5
Arson, 2d degree (2 commitments) ..	1	Embracery	1
Arson, 2d deg., and attempted arson ..	9	Felony	10
Assault to murder	1	Feloniously taking from United States mail a letter	1
Assault to murder and prior	1	Forgery	22
Assault to commit crime against nature	2	Forgery and burglary (2 commit's) ..	1
Assault with deadly weapon	18	Grand larceny	81
Assault with deadly weapon and assault to rob	1	Grand larceny (2 commitments) ..	4
Assault with intent to rape	9	Grand larceny and prior	4
Assault with intent to rob	9	Grand larceny and burglary (2 commitments)	1
Assault with intent to rob and prior ..	1	Grand larceny and burglary, 1st degree (4 commitments)	1
Attempt to commit burglary	8	Grand larceny and escaping from State Prison	1
Attempt to commit burglary and prior ..	1	Grand larceny and injuring a public jail	1
Attempt to commit crime against nature	2	Grand larceny and felony (2 commitments)	1
Attempt to commit grand larceny ..	3	Having possession of counterfeit coin	1
Attempt to commit robbery	3	Infamous crime against nature	1
Bigamy	2	Injuring a public jail	1
Burglary	13	Making and passing a fictitious check	1
Burglary and prior	1	Manslaughter	22
Burglary and larceny	1	Murder	7
Burglary and grand larceny	2	Murder, 1st degree	46
Burglary and assault to murder	1	Murder, 2d degree	30
Burglary and injuring a public jail ..	1	Perjury	7
Burglary, 1st degree	98	Petit larceny and prior	6
Burglary, 1st degree, and priors	9	Rape	6
Burglary, 1st degree (3 commit's) ..	1	Receiving stolen property	1
Burglary, 1st degree, and assault to murder ..	1	Robbery	71
Burglary, 1st degree, and grand larceny (4 commitments)	1	Robbery and prior	2
Burglary, 2d degree	102	Robbery and assault to murder ..	2
Burglary, 2d degree (2 commit's) ..	2	Robbing United States mail and assaulting carrier	2
Burglary, 2d degree, and priors	4	Subornation of perjury	1
Burglary, 2d deg., and assault to rob ..	1		
Burglary, 2d deg., and grand larceny ..	1		
Buying stolen property	1		
Conduct prejudicial to good behavior and military discipline	1	Total	665

TABLE No. 5.

Terms of Imprisonment.

TERM.	No.	TERM.	No.
Life	61	Seventeen years	3
One quarter year	1	Eighteen years	4
One year	15	Twenty years	16
One year and \$100 fine	1	Twenty-one years	1
One and one quarter years	1	Twenty-two years	1
One and one half years	7	Twenty-five years	9
Two years	67	Twenty-eight years	1
Two and one quarter years	1	Twenty-nine years	2
Two and one half years	8	Thirty years	3
Three years	74	Thirty-two years	1
Three years and \$500 fine	1	Thirty-five years	1
Three years and \$1,000 fine	1	Forty years	3
Three and one quarter years	1	Forty-two years	1
Three and one half years	7	Fifty years	3
Four years	54	Fifty-five years	1
Five years	76	Sixty years	1
Six years	24	Seventy-three years	1
Six and one half years	1		
Seven years	24	Total	665
Eight years	29		
Nine years	9	Serving first term	508
Nine and eleven twelfths years	1	Serving second term	114
Ten years	87	Serving third term	26
Ten years and \$1,000 fine	1	Serving fourth term	9
Eleven years	2	Serving fifth term	4
Twelve years	17	Serving sixth term	2
Thirteen years	3	Serving seventh term	1
Fourteen years	17	Serving ninth term	1
Fifteen years	19		
Sixteen years	3	Total	665

TABLE No. 5—Continued.

Educational Abilities of Prisoners.

	No.
Read and write	554
Read and cannot write	22
Neither read nor write	89
Total	665

TABLE No. 6.

Ages of Prisoners.

AGE.	No.	AGE.	No.
Sixteen years.....	5	Forty-four years.....	7
Seventeen years.....	5	Forty-five years.....	11
Eighteen years.....	13	Forty-six years.....	10
Nineteen years.....	21	Forty-seven years.....	3
Twenty years.....	26	Forty-eight years.....	7
Twenty-one years.....	31	Forty-nine years.....	1
Twenty-two years.....	28	Fifty years.....	8
Twenty-three years.....	27	Fifty-one years.....	2
Twenty-four years.....	20	Fifty-two years.....	4
Twenty-five years.....	26	Fifty-three years.....	6
Twenty-six years.....	31	Fifty-four years.....	3
Twenty-seven years.....	32	Fifty-six years.....	2
Twenty-eight years.....	31	Fifty-seven years.....	2
Twenty-nine years.....	29	Fifty-eight years.....	3
Thirty years.....	31	Fifty-nine years.....	2
Thirty-one years.....	24	Sixty years.....	2
Thirty-two years.....	28	Sixty-one years.....	1
Thirty-three years.....	14	Sixty-two years.....	2
Thirty-four years.....	25	Sixty-three years.....	1
Thirty-five years.....	18	Sixty-four years.....	2
Thirty-six years.....	15	Sixty-five years.....	3
Thirty-seven years.....	13	Sixty-six years.....	3
Thirty-eight years.....	12	Sixty-seven years.....	1
Thirty-nine years.....	22	Sixty-eight years.....	1
Forty years.....	17	Seventy-nine years.....	1
Forty-one years.....	11		
Forty-two years.....	7	Total.....	665
Forty-three years.....	15		

RECAPITULATION.

Twenty years and under.....	70	or	10.53	per cent.
Twenty-one years to thirty years.....	286	or	43.00	per cent.
Thirty-one years to forty years.....	188	or	28.27	per cent.
Forty-one years to fifty years.....	80	or	12.03	per cent.
Fifty-one years to sixty years.....	26	or	3.91	per cent.
Sixty-one years to seventy-nine years.....	15	or	2.26	per cent.
Totals.....	665	or	100.00	per cent.

TABLE No. 7.

Number of Prisoners from Each County.

COUNTY.	No.	Per Cent.	COUNTY.	No.	Per Cent.
Alameda	42	6.32	San Joaquin	27	4.06
Alpine	1	.15	San Luis Obispo	7	1.05
Amador	3	.45	San Mateo	6	.90
Butte	11	1.66	Santa Barbara	8	1.20
Calaveras	1	.15	Santa Clara	14	2.11
Colusa	10	1.51	Santa Cruz	5	.75
Contra Costa	2	.30	Shasta	2	.30
Del Norte	1	.15	Sierra	3	.45
El Dorado	8	1.20	Siskiyou	8	1.20
Fresno	23	3.46	Solano	7	1.05
Humboldt	2	.30	Sonoma	12	1.81
Kern	6	.90	Stanislaus	8	1.20
Lake	3	.45	Sutter	2	.30
Los Angeles	39	5.87	Tehama	8	1.20
Marin	2	.30	Trinity	3	.45
Mariposa	3	.45	Tulare	1	.15
Mendocino	8	1.20	Tuolumne	3	.45
Merced	3	.45	Ventura	6	.90
Modoc	3	.45	Yolo	11	1.66
Mono	1	.15	Yuba	20	3.01
Monterey	3	.45	United States Courts:		
Napa	3	.45	Northern District of Cal-		
Nevada	11	1.66	ifornia	4	.60
Orange	1	.15	Southern District of Cal-		
Placer	3	.45	ifornia	1	.15
Sacramento	70	10.53	Military Department of		
San Benito	2	.30	Arizona	1	.15
San Bernardino	15	2.25	Alcatraz Island	1	.15
San Diego	5	.75			
San Francisco	212	31.88	Totals	665	100.00

TABLE No. 8.

Occupation of Prisoners when Received.

OCCUPATION.	No.	OCCUPATION.	No.
Accountant	1	Nailmaker	1
Acrobat	1	Packer	1
Baker	6	Painter and paperhanger	19
Barber	11	Pastry cook	1
Barkeeper	4	Peddler	1
Blacksmith	12	Physician	1
Boatman	2	Pipemaker	1
Bookkeeper	3	Plasterer	1
Boilermaker	6	Plumber	5
Boxmaker	1	Porter	5
Brakeman	5	Preacher	1
Brewer	1	Printer	6
Bricklayer	2	Railroad man	4
Brickmaker	2	Saddler	2
Butcher	11	Sailor	26
Buttonmaker	1	Sailmaker	1
Carpenter	17	Salesman	5
Cabinetmaker	6	Saloonkeeper	2
Cigarmaker	1	Sawyer	1
Clerk	11	Ship carpenter	1
Cook	27	Ship caulker	2
Cooper	1	Ship rigger	1
Dairyman	1	Shipwright	1
Dentist	2	Shoemaker	9
Druggist	2	Signwriter	2
Engineer, civil	1	Silver plater	1
Engineer, locomotive	4	Smelter	1
Engineer, stationary	6	Soda manufacturer	1
Farmer	7	Soldier	1
Farm laborer	39	Stableman	2
Fireman	7	Stage driver	1
Fisherman	3	Stevedore	1
Fresco painter	1	Stockraiser	1
Glassblower	1	Stonecutter	5
Goldbeater	1	Stonemason	2
Gunsmith	1	Storekeeper	1
Hackman	1	Sugar boiler	1
Harnessmaker	5	Surgical dresser	1
Horseshoer	2	Tailor	8
Hostler	12	Tanner	3
Hotelkeeper	1	Teamster	28
Hotel steward	2	Tinner	3
Interpreter	1	Tin roofer	1
Ironmolder	4	Trader	2
Iron worker	2	Turner	1
Jeweler	1	Vaquero	4
Journalist	2	Valet	1
Laborer	186	Varnisher	1
Laundryman	9	Waiter	15
Lithographer	1	Wire worker	1
Locksmith	1	Wood chopper	2
Lumberman	2	Woodmolder	1
Machinist	7	Wool sorter	1
Marble polisher	1	No occupation	3
Millwright	1		
Miner	21	Total	665
Musician	1		

TABLE No. 9.

Showing the number of Convicts assigned to the various Departments, etc., of the Prison at the close of the Fiscal Year, ending June 30, 1890.

DEPARTMENT.	No.	DEPARTMENT.	No.
Ranch.....	10	Stable.....	7
General repairs.....	3	Railroad trackmen.....	3
Permanent improvements.....	2	Harness shop.....	1
Laundry.....	13	Carpenter shop.....	4
General kitchen.....	35	Tin shop.....	1
Bakery.....	4	Barber shop.....	2
State power house.....	199	Plumber shop.....	1
Officers' dining-room.....	8	Paint shop.....	2
House servants.....	10	Shoe shop.....	7
Chicken ranch.....	1	Tailor shop.....	7
Whitewashers.....	5	Photographer.....	1
Cell tenders.....	11	Captain of Guards' office.....	1
Gate tenders.....	3	Deputy Warden's office.....	2
Library.....	1	Clerk's office.....	1
Commissary.....	7	Patients in hospital.....	2
Gas house.....	1	Daily excuses.....	6
General laborer.....	1	Cripples, imbeciles, etc.....	10
Dairy.....	1	Unassigned.....	1
Lamp-room.....	2	Sweepers.....	1
Hospital nurses.....	2	Solitary.....	1
Sawmill.....	6	Canal.....	256
Scavengers.....	3	Engineers.....	3
Vegetable garden.....	5		
Flower garden.....	12	Total.....	665

TABLE No. 10.

Employment and Labor Report for the Fiscal Year, ending June 30, 1890.

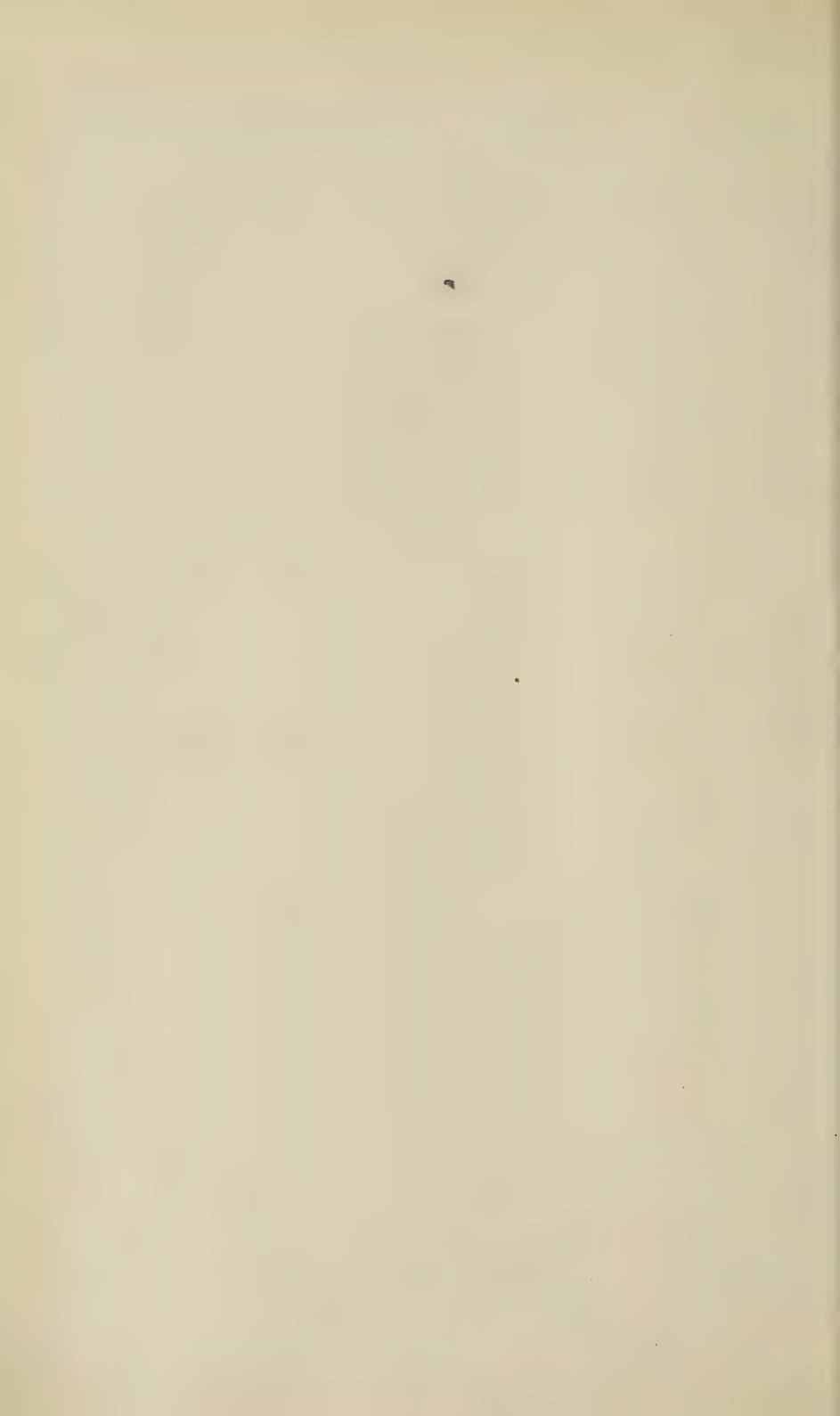
NATURE OF LABOR.	Days Labor.	NATURE OF LABOR.	Days Labor.
Canal.....	98,582	Harness shop.....	332
Quarry department.....	1,512	Carpenter shop.....	1,501
Ranch.....	2,585	Tin shop.....	656
General repairs.....	757	Barber shop.....	723
Permanent improvements.....	771	Plumber shop.....	408
Laundry department.....	4,067	Paint shop.....	704
General kitchen.....	11,613	Shoe shop.....	1,818
Bakery.....	1,442	Tailor shop.....	2,384
Engineers.....	1,048	Photographer.....	362
Officers' dining-room.....	2,854	Captain of Guards' office.....	372
House servants.....	3,271	Deputy Warden's office.....	711
Chicken ranch.....	365	Clerk's office.....	309
Whitewashers.....	1,338	Warden's office.....	60
Cell tenders.....	3,637	Sweepers.....	357
Gate tenders.....	1,287	State power house.....	18,704
Library.....	361	Livermore contract.....	457
Commissary.....	2,306		
Gas house.....	365	Total.....	181,915
General laborers.....	374		
Dairy.....	391	<i>Lost Labor.</i>	
Lamp-room.....	793	Patients in hospital.....	1,605
Hospital nurses.....	538	Daily excuses.....	2,416
Sawmill.....	1,427	Cripples, imbeciles, etc.....	2,636
Scavengers.....	1,853	Unassigned.....	591
Vegetable garden.....	1,735	Solitary.....	664
Flower garden.....	3,750		
Stable.....	2,604	Total.....	7,912
Road gang.....	431		

TABLE No. 11.
Clothing Account, July 1, 1889, to June 30, 1890.

MONTH.	CLOTHING, SHOES, ETC., MANUFACTURED.							
	Pants.....	Wool Shirts.....	Hickory Shirts..	Drawers.....	Undershirts.....	Shoes.....	Boots.....	Shoes Repaired.
1889—July.....	137	84	34	64	62	88	4	66
August.....	245	100	28	2	75	75		53
September.....	165	141	20	96	174	88	1	93
October.....	177	138	28	281	165	132	6	90
November.....	101	116		334	338	105	4	57
December.....	132	194	14	330	347	63	9	84
1890—January.....	188	194	15	272	231	166	5	87
February.....	109	16	16	95	121	160	2	62
March.....	201	37	20	168	111	127	3	94
April.....	237	171	23	16	44	89	2	171
May.....	122	191	77			99	2	174
June.....	31		76		88	81		217
Totals.....	1,845	1,573	351	1,718	1,681	1,273	38	1,248

TABLE No. 11—Continued.

MONTH.	CLOTHING, SHOES, ETC., ISSUED.												
	Pants.....	Citizens' Clothes.		Oil Coats.....	Buck Gloves.....	Rubber Boots....	Overalls.....	Shoes Repaired..	Boots.....	Drawers.....	Undershirts.....	Wool Hats.....	Straw Hats.....
1889—													
July.....	182	10	11	—	—	—	—	66	4	18	23	114	13
August.....	233	9	9	—	—	—	—	53	—	17	14	151	6
September.....	179	14	15	—	1	3	—	93	1	25	25	114	—
October.....	191	18	18	—	3	3	—	90	4	271	270	101	24
November.....	133	11	11	—	6	—	—	57	5	435	430	86	—
December.....	154	17	17	2	5	—	1	84	9	367	361	81	—
1890—													
January.....	133	11	11	—	37	—	—	87	3	232	231	78	—
February.....	107	17	13	—	15	12	—	62	4	56	58	98	—
March.....	165	7	6	—	4	—	—	94	2	119	119	147	—
April.....	166	10	6	—	7	—	—	171	1	48	47	101	—
May.....	140	8	11	—	16	—	—	174	3	14	14	76	36
June.....	86	1	2	—	8	—	—	217	—	13	5	47	70
Totals.....	1,869	133	130	2	106	18	1	1,248	36	1,615	1,597	1,194	149



CLERK'S REPORT.

STATE PRISON AT FOLSOM, CAL., }
July 1, 1890. }

To the honorable State Board of Prison Directors:

GENTLEMEN: I herewith submit for your consideration a full statement of the financial transactions of this prison for the forty-first fiscal year, ending June 30, 1890.

Very respectfully,

W. W. CUNNINGHAM,
Clerk.

TABLE No. 1.
Cash Receipts of the State Prison at Folsom during the Forty-first Fiscal Year, ending June 30, 1890.

MONTH.	Sales of Granite.	General Approp- riation 40th Fiscal Year....	General Approp- riation 41st Fiscal Year....	Power House Appropriation.	Rentals, Wood- en Buildings..	Sales, Hospital Department....	United States Government ..	Miscellaneous ..	Folsom Water Power Co.....	Total
Balance June 30, 1889										\$1,532 11
1889—July	\$200 00	\$19,537 50	\$9,005 93	\$580 00	\$33 00	\$3 00		\$8 70		20,362 20
August			3,280 03	640 00	31 00	1 50	\$182 00	40 20		9,990 63
September	483 12		9,253 90		24 80			27 30	\$210 87	4,025 82
October			9,059 42	615 00	25 00			44 62		9,939 52
November			10,199 39	425 00	26 00		184 00	33 60		9,728 02
December	1,255 00		10,143 76	215 00	26 00			52 65		11,748 04
1890—January			15,793 71	100 00	26 00			25 10	325 90	10,620 76
February			197 00	137 00	24 50	1 50	225 00	24 05		16,265 76
March	726 05		9,510 89	6,806 48	26 00			16 90	11 00	17,097 32
April			9,482 63	9,151 06	26 00			12 75		18,672 34
May			3,412 55		26 00		270 00	6 60		3,715 15
June			9,931 06	1,969 71	33 00			19 45		11,953 22
Totals	\$2,664 17	\$19,537 50	\$99,163 17	\$20,699 25	\$328 00	\$6 00	\$861 00	\$311 92	\$547 77	\$145,650 89

TABLE No. 3.

Exhibit of Cost of Maintaining Prisoners at State Prison at Folsom for the Forty-first Fiscal Year, ending June 30, 1890.

ACCOUNTS.	Inventory, July 1, 1889.	Issues During Year.	Total.	Inventory, July 1, 1890.	Balance.
Salary		\$40,577 94	\$40,577 94		\$40,577 94
Expense		2,826 71	2,826 71		2,826 71
Hospital Department	\$916 90	2,002 60	2,919 50	\$1,141 86	1,777 64
Discharged prisoners		1,398 65	1,398 65		1,398 65
Warden's house	35 12	1,282 90	1,318 02	59 23	1,258 79
Officers and guards' mess	545 96	8,163 15	8,709 11	804 77	7,904 34
Prisoners' mess					25,291 88
Commissary Department					215 55
Capt. of Guards' Department					474 19
Turnkey's Department					13,575 42
Engineer's Department					3,489 23
Laundry Department					840 09
Stock Department					3,608 14
Warden's office					98 96
Clerk's office					87 90
Permanent furniture					79 74
General repairs					553 70
Light Department					2,575 78
Profit and loss (Commissary)					776 50
Escaped prisoners					128 65
Insane prisoners (transportation)					37 00
Transportation prisoners					245 10
Total					\$107,821 90
Receipts from farm					3,567 49
Net expense of maintenance					\$104,254 41

Average number of prisoners, 623; cost per capita per diem, 45.8 cents.

TABLE No. 4.

Earnings of the State Prison at Folsom for the Forty-first Fiscal Year, ending June 30, 1890.

	QUARRY.		FARM.		LABOR.		Earnings Forty-first Fiscal Year.
	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.	
Receipts during forty-first fiscal year		\$2,565 82		\$4,436 01		\$210 00	
Stock on hand July 1, 1890		7,561 01		3,416 44			
Issued during forty-first fiscal year	\$860 93		\$2,131 26				
Stock on hand, inventory July 1, 1889	7,348 92		2,153 70				
Earnings forty-first fiscal year	1,916 98		3,567 49		\$210 00		\$5,694 47
Totals	\$10,126 83	\$10,126 83	\$7,852 45	\$7,852 45	\$210 00	\$210 00	\$5,694 47
Net earnings forty-first fiscal year							\$5,694 47

TABLE No. 5.

Assets and Liabilities.

<i>Assets.</i>		
Cash on hand.....	\$2,617 27	
Officers and Guards' mess.....	804 77	
Hospital Department.....	1,141 86	
Commissary Department.....	535 16	
Captain of the Guards' Department.....	13,285 38	
Turnkey's Department.....	12,802 05	
Engineer's Department.....	4,650 11	
Laundry Department.....	1,049 27	
Stock Department.....	5,973 36	
Warden's office.....	1,535 20	
Clerk's office.....	253 85	
Permanent furniture.....	4,799 96	
Prison improvement.....	412,488 06	
Wooden buildings.....	12,686 67	
Railroad material.....	2,664 16	
Quarry.....	7,561 01	
Light Department.....	2,323 86	
Farm Department.....	3,416 44	
Real estate.....	15,000 00	
Merchandise (supplies on hand).....	4,873 11	
Warden's house.....	59 23	
State Treasurer (prison earnings).....	12,693 31	
Due from sundry debtors.....	3,580 61	
Prisoners' mess.....	2,632 31	
		\$529,427 01
<i>Liabilities.</i>		
Unpaid bills, May, 1890.....	\$5,398 07	
Unpaid bills, June, 1890.....	5,899 87	
Salaries of officers and guards, June, 1890.....	3,556 62	
		14,854 56
Excess of assets.....		\$514,572 45

TABLE No. 6.
Trial Balances.

	TRIAL BALANCE, JUNE 30, 1890.		STATE PRISON AT FOLSOM.		TRIAL BALANCE, JULY 1, 1890.	
	Dr.	Cr.	Dr.	Cr.	Dr.	Cr.
Cash.....	\$2,617 27				\$2,617 27	
Officers and guards' mess.....	8,709 11		88,709 11		8,709 11	
Prisoners' mess.....	27,924 19		27,924 19		2,632 31	
Hospital Department.....	2,919 50		2,919 50		1,141 86	
Commissary Department.....	750 71		750 71		535 16	
Captain of the Guards' Department.....	13,759 57		13,759 57		13,295 38	
Turnkey's Department.....	26,377 47		26,377 47		12,802 05	
Engineer's Department.....	8,139 34		8,139 34		4,650 11	
Laundry Department.....	1,889 36		1,889 36		1,049 27	
Stock Department.....	9,581 50		9,581 50		5,973 36	
Warden's office.....	1,634 16		1,634 16		1,535 20	
Clerk's office.....	341 75		341 75		253 85	
Permanent furniture.....	4,879 70		4,879 70		4,749 96	
Prison improvement.....	412,587 52		412,587 52		412,488 06	
Wooden buildings.....	11,125 00		11,125 00		12,686 67	
Railroad material.....	2,664 77		2,664 77		2,664 16	
Quarry.....	5,644 03		5,644 03		7,561 01	
Light Department.....	4,899 64		4,899 64		2,323 86	
Farm.....	15,000 00	\$151 05	15,000 00		3,416 44	
Real estate.....	1,398 65		1,398 65		15,000 00	
Discharged prisoners.....	4,438 08		4,438 08			
Merchandise.....					4,873 11	
Freight.....	1,318 02		1,318 02			
Warden's house.....	2,826 71		2,826 71		59 23	
Expense account.....	776 50		776 50			
Profit and loss (Commissary).....	786 40		786 40			
Prison Directors.....	40,577 94		40,577 94			
Salary.....		210 00		210 00		
Prison labor.....		20,689 25				\$20,689 25
Power house appropriation.....	553 70		553 70			
General repairs.....	128 65		128 65			
Escaped prisoners.....						
State Prison at Folsom.....		499,420 77		499,420 77		515,755 58

Sundry officers and guards	37 00	37 00			3,556 62
Transportation (insane)	245 10	245 10			
Transportation (prisoners)	12,693 31			12,693 31	
State Treasurer (prison earnings)					
General appropriations					
Sundry debtors	3,580 61			3,580 61	
Sundry creditors (May and June bills)					
State power house	52,170 10			52,170 10	
Loss account	1,348 66	1,348 66			
Inventory State Prison at Folsom, July 1, 1890					
Balance to credit of State Prison at Folsom		510,555 82			
Totals	\$684,324 02	\$1,129,018 31	\$1,129,018 31	\$581,597 11	\$581,597 11

TABLE No. 7.

Financial Condition of the State Prison at Folsom, June 30, 1890.

Amount of appropriation for the forty-first fiscal year	\$110,000 00	
Amount in State Prison Fund	12,693 31	
Amount due from sundry debtors	3,580 61	
Amount of cash on hand June 30, 1890	2,617 27	
<i>Contra.</i>		\$128,891 19
Amount drawn from appropriation to June 30, 1890	\$99,163 17	
Unpaid May and June supply and expense bills	11,297 94	
Unpaid salaries for June, 1890	3,556 62	
		114,017 73
Total amount of available assets in excess of liabilities June 30, 1890		\$14,873 46
Amount of power house appropriation		\$112,500 00
Amount drawn to June 30, 1890	\$20,699 25	
Amount unpaid May and June bills	30,287 72	
		50,986 97
Balance in State Treasury after paying May and June bills		\$61,513 03

PHYSICIAN'S REPORT.

MEDICAL DEPARTMENT,
FOLSOM STATE PRISON, July 1, 1890. }

Capt. CHAS. AULL, Warden:

SIR: It again becomes my duty to formally report to you the medical and sanitary condition of this institution for the fiscal year ending yesterday. The accompanying tables exhibit in detail all needful information as to the work of the department during the year.

The general health of the prisoners has been good, but this is largely due to the open-air labor in which they are engaged, and other conditions which serve to reduce to a minimum the liability to disease. It may be said, however, in this connection, as well as in explanation of the tabulated number of cases treated, that no case, however trivial, is refused attention, and this rule of the department must be credited with the staying of sickness and mortality in the institution. Even under the most healthful conditions, people will get sick, and while we are as powerless to prevent the ills of bondmen as others are those of freemen, we can by proper attention and intelligent treatment, though it may cost something in time, patience, and money to do so, keep our people alive and comparatively well.

During the months of January and February of the current year, the institution was visited by the then prevailing epidemic, "La Grippe." Its coming had been foreshadowed and provision made to meet it, and though the experience and its results, the like of which are unknown in the history, not only of this prison, but of that of every other institution of similar character with which we are acquainted, entailed so much labor and care upon the department, still I cannot help but feel proud of the success with which the dread scourge was combatted. The first cases were at once removed to the hospital and then promptly and efficiently treated. The germ had, however, taken fast hold, and by the twenty-fifth of January, as exhibited by the records of the department, over two hundred cases were under treatment, some sixty of which were very bad. There were about thirty-five of these who had previously been subject to bronchial and asthmatical affections, and these sank rapidly into an extremely low asthenic condition. This, coupled with the bad sewerage, the ill ventilated cells of the prison, and the depressive influence of the severe winter weather then prevailing, made me almost despair of saving some of them. But good care and careful nursing at last conquered, and not a single life was lost.

At this point I deem it instructive as well as interesting to invite attention to the following comparative "Table of Mortality," which I have made up from reports of the various penal institutions, as named:

COMPARATIVE TABLE OF MORTALITY—PENAL INSTITUTIONS.

Report showing Death Rate at Various Prisons during the Years 1887, 1888, and 1889.

NAME.	Daily Average of Prisoners.	Year.	Deaths.	Deaths per 1,000.
Allegheny County Workhouse, N. Y.	564	1888	10	17.73
Allegheny County Workhouse, N. Y.	628	1889	5	7.96
Albany Penitentiary, N. Y.	837	1888	24	28.67
Auburn State Prison, N. Y.	1,194	1888	12	18.42
Clinton, N. Y.	762	1888	22	28.87
Dakota State Prison, Sioux Falls	83	1887	1	12.04
Dakota State Prison, Sioux Falls	92	1888	2	21.73
Eastern Penitentiary, Pennsylvania	1,138	1888	18	15.81
Folsom State Prison, Cal.	540	1888	7	12.96
Folsom State Prison, Cal.	488	1889	8	12.29
Folsom State Prison, Cal.	623	1890	3	4.81
Georgia Penitentiary	1,526	1887	51	33.42
Georgia Penitentiary	1,537	1888	30	19.52
Indiana State Prison, South	557	1888	11	19.75
Indiana State Prison, South	549	1889	13	23.68
Indiana State Prison, North	681	1888	11	16.15
Iowa Penitentiary, Fort Madison	351	1888	5	14.24
Iowa Penitentiary, Fort Madison	356	1889	1	28.09
Insane Criminals, N. Y.	209	1888	3	14.35
Illinois State Penitentiary, Joliet	1,459	1887	28	19.19
Illinois State Penitentiary, Joliet	1,321	1888	45	34.06
Kansas State Penitentiary	935	1887	16	17.11
Kansas State Penitentiary	938	1888	21	22.38
Minnesota State Prison	398	1887	5	12.56
Minnesota State Prison	426	1888	4	9.39
Maryland Penitentiary	567	1888	11	19.40
Massachusetts State Prison	556	1888	3	5.40
Maryland Penitentiary	665	1889	9	13.53
Montgomery County Prison, Pa.	71	1889	2	28.17
Milwaukee House of Correction	227	1888	4	17.62
Massachusetts Reformatory	725	1887	2	2.76
Missouri State Penitentiary	1,636	1887	20	12.22
Missouri State Penitentiary	1,720	1888	22	12.79
New Jersey State Prison	874	1888	5	5.72
New Jersey State Prison	965	1889	9	9.33
North Carolina Penitentiary	392	1887	26	66.32
North Carolina Penitentiary	339	1888	17	50.14
New Hampshire State Prison	106	1889	1	9.43
Nebraska State Penitentiary	333	1887	4	12.01
Nebraska State Penitentiary	305	1888	4	13.11
Nevada State Prison (two years)	114	1887-8	1	.88
Oregon State Penitentiary	262	1887	5	19.08
Oregon State Penitentiary	257	1888	4	15.56
Ohio State Penitentiary	1,390	1888	16	11.51
Rhode Island State Prison	104	1888		
Rhode Island State Prison	125	1889	2	16.00
Southern Illinois Penitentiary	782	1887	16	20.46
Southern Illinois Penitentiary	763	1888	3	3.93
St. Paul Workhouse	162	1889	2	12.34
Sing Sing Prison, N. Y.	1,534	1888	15	9.78
San Quentin Prison, Cal.	1,277	1888	32	25.06
San Quentin Prison, Cal.	1,338	1889	34	25.41
Texas State Prisons (two years), Huntsville and Rusk, including sold labor at different camps	3,129	1887-8	223	71.26
At prisons proper (estimated)	699	1887-8	99	141.63
United States Military Prison, Fort Leavenworth, Kan.	490	1888	3	6.12
Virginia State Penitentiary	655	1888	22	33.58
Western Penitentiary, Pennsylvania	686	1887	8	11.66
Western Penitentiary, Pennsylvania	664	1888	4	6.02

With reference to the sanitary condition of the prison, I desire to urge the crying necessity of overhauling the imperfect, patched up, broken, and totally inadequate sewer system now in use, and replacing it with one of new and improved construction, which shall be equal, at

least, to the present and growing demands of the institution. The elimination of sewer gas and the mephitic vapors arising therefrom will never be accomplished until this is done. Some means should also be adopted for more perfectly ventilating the cells of the prison. A large proportion of the cases daily treated by me emanate from these two causes alone—defective sewerage and imperfect ventilation.

I desire to commend the thorough cleanliness with which the cell buildings, the dining-rooms, kitchen, bakery, and accessories are kept; and the universal tidiness and neatness that pervades all departments is gratifying indeed to a conscientious physician having the care and consideration of such a close community as this one is.

I desire to take issue with the effort that is being made in certain quarters tending to establish at this prison a "Sanitarium" or "Lying-in Asylum" for all the broken down phthisical criminals of the State. I will admit that the climate here is all that can be said of it, so far as its benefits are concerned to the consumptive, the rheumatic, and the syphilitic; but so long as the present sanitary conditions here obtain, and until our narrow and limited hospital accommodations are enlarged, it would be not only unwise and inhuman, but exceedingly detrimental to the interests and health of this institution, to foist upon it the burden and care of the bacillus-bearing criminal to propagate and spread disease and death in our little community. To treat tuberculosis successfully strict isolation must be resorted to, and the most stringent aseptic conditions observed in order to insure favorable results. How can we do this in our one small room with only six beds, which comprise our present hospital accommodations for six hundred and sixty-five men? Let the doctors, the lawyers, the committing magistrates, the Boards of Health, the police departments, and citizens and taxpayers of the State, generally, unite in securing us appropriations with which to provide right and proper accommodations, and we will then undertake to care for and administer to all that may be sent to us.

The supplies and stores furnished for the maintenance of the prisoners are, I find, of the best quality, but the means for properly preparing them for food are entirely incommensurate to the requirements. You cannot fitly make ready the bills of fare which you provide, and which is deemed so necessary to the proper nourishment and sustenance of our laborers in the heavy work of the quarry, canal, and ranch upon one small range, and in the stuffy, narrow quarters here denominated kitchen. Others and larger conveniences should be provided, not only for the welfare and health of the prisoners themselves, but for the saving and economy resulting therefrom to the State.

I should consider this report incomplete did I not call attention to the approaching necessity for additional cell room. While the needs of the present are provided for, the increment of the near future must be, in order that overcrowding be prevented, and safety and comfort and convenience be maintained.

Permit me to thank you for the able support you have given me during the past year, and for the prompt and generous attention paid to my requisitions for supplies. Let it not be forgotten that the State is here carrying on a vast physical enterprise, in which the forces of Nature and the science and arts of man, are in daily conflict, entailing, in spite of every precaution and safeguard, disease, accident, and death. The

humane consideration with which you have so kindly seconded my efforts to cure the one, repair the other, and stay the last, is most heartily appreciated and herewith gratefully acknowledged by

Your obedient servant,

THOS. B. EAGLE,
Physician.

TABLE B.

Yearly Summary of the Medical Department of Folsom State Prison.

DISEASES.	Total Number of Dispen- sary Calls during the Year	Total Number of Patients Treated in Hospital during Year	Total Number of Deaths during Year	Total Number of Surgical Operations of every kind during year
Asthma	97	1		
Abscess, phosas		1	1a	1
Biliousness	495			
Boils	421			
Bite, human		2		1
Brain, inflammation of	1	1	1b	
Bowels, inflammation of		1		
Catarrh	141			
Constipation	598			
Colic, simple	693			
Colic, gastric		1		
Coughs	1,632			
Carbuncle	7			7
Conjunctivitis	19			
Diarrhoea	747	1		
Dislocation of humerus		1		1
Dysentery	19	1		
Eczema	33			
Erysipelas	34			
Epilepsy		1		
Eyes, melted lead in		1		1
Eyes, foreign bodies in	36			36
Felons	87			21
Fracture of tenth, eleventh, and twelfth ribs		1		1d
Fracture of fibula		1		1e
Compound fracture of tibia and fibula		1		1f
Amputation of left index finger				1g
Fever, remittent		4		
Hemorrhoids	166			
Insomnia	300			
Indigestion	379			
Lungs, congestion of		2		
"La Grippe"	555	3		
Lupus	3			
Malaria	1,037	3		
Muscles, rupture of		1		1
Neuralgia	243			
Onychia	18			
Phthisis	239	2	1c	

a CHARLEY DICK, No. 1885, an Indian, died December 1, 1889. Abscess formed and discharging when received at prison.

b HARRISON, No. 1595, died July 20, 1889; was a confirmed opium fiend.

c FLANNIGAN, No. 430, died September 29, 1889; was an old man sixty-seven years of age.

d McCURDY, a one-armed man; slipped from ladder.

e REISLAND; injured by falling "grout box."

f STEIN; limb literally mashed; amputation deferred on account of weak condition of patient and because of slight chance of saving the limb. Owing to laceration of muscles and punctured wounds, caused by protruding bones, an improved fracture box was designed which admitted of dressing without removal of splints. Careful aseptic conditions were observed, and a series of antiseptic dressings constantly applied. Under this treatment the wounds slowly healed, and on July fourth the patient made use of crutches for the first time, the uniting of the calices being firmly effected. Present indications are to a complete recovery and perfect use of limb.

g BALDERAMO, a Mexican, was bitten to the bone at the knuckle joint of the left index finger. The poison was prevented from spreading by heroic treatment with iodine and iron, and January sixth amputation was made, with success.

TABLE B—Continued.

DISEASES.	Total Number of Dispen- sary Calls during the Year	Total Number of Patients Treated in Hospital during Year.....	Total Number of Deaths during Year.....	Total Number of Surgical Operations of every kind during Year.....
Pneumonia	13	1	.....	.....
Rheumatism	679	5	.....	.....
Rhus tox.....	18	.....	.....	.....
Scrofula	59	1	.....	.....
Syphilis	201	1	.....	.....
Spinal injury .....	.....	1	.....	1
Sprains	118	.....	.....	.....
Teeth extracted	109	.....	.....	109
Wounds, incised	302	.....	.....	302
Wounds, contused	401	3	.....	404
Unclassified	3,671	.....	.....	52
Totals	13,570	42	3	941

BIENNIAL REPORT OF THE TRUSTEES

AND THE

FOURTEENTH AND FIFTEENTH ANNUAL REPORTS

OF THE

RESIDENT PHYSICIAN

OF THE

NAPA STATE ASYLUM FOR THE INSANE.

1890.



SACRAMENTO:

STATE OFFICE, : : : : : J. D. YOUNG, SUPT. STATE PRINTING.

1890.

OFFICERS OF THE ASYLUM.

BOARD OF TRUSTEES.

BENJAMIN SHURTLEFF, President	Napa.
J. C. MARTIN	Oakland.
J. Q. BROWN	San Francisco.
J. F. LAMDIN	Napa.
G. M. FRANCIS	Napa.

TREASURER AND EX OFFICIO SECRETARY.

C. B. SEELEY	Napa.
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RESIDENT OFFICERS.

E. T. WILKINS, M.D.	Resident Physician.
L. F. DOZIER, M.D.	Assistant Physician.
A. M. GARDNER, M.D.	Assistant Physician.
DRIESBACH SMITH, M.D.	Assistant Physician.
J. B. STEVENS	Secretary.
J. M. PALMER	Steward.
MRS. JENNIE HAWKES	Matron.
JOHN HAWKES	Supervisor.
W. H. MARTIN	Druggist.
L. D. HAAS	Steward's Clerk.

REPORT.

To his Excellency ROBERT W. WATERMAN, Governor of the State of California:

In compliance with the law, the Board of Trustees of the Napa State Asylum for the Insane respectfully submits a report of the financial and general condition of the institution for the two fiscal years ending with the thirtieth day of June, 1890. The Board also makes a number of recommendations concerning the future management and welfare of the asylum.

There was an undrawn balance in the deficiency appropriation for the fiscal year ending with June 30, 1889, of \$4,935 57. It will be seen by the Treasurer's report herewith submitted, that the fund for the improvement of gasworks, and the fund for the improvement of floors and hallways, have been expended for the purposes for which they were appropriated.

The last Legislature appropriated \$408,800 for maintenance for the two fiscal years ending with June 30, 1891. By the terms of this appropriation, only one half of this amount, the sum of \$204,400, was available to meet the expenses of the fiscal year which closed on the thirtieth of June last. The expense for maintenance for the last named year was \$194,971 81, leaving a balance undrawn, which is available for the current fiscal year, of \$9,428 19. Vouchers for all expenditures are on file in the office of the Treasurer, except those for the contingent fund, which are filed in the office of the Resident Physician.

The following statement shows the receipts and expenditures, on account of the contingent fund, for the two fiscal years ending June 30, 1890.

To balance June 30, 1888.....	\$2,617 75
To amount received for board.....	22,790 00
To amount received for Steward's sales.....	2,246 25
To amount received for sale of land.....	235 75
To amount received for rent of land.....	10 00
	<hr/> \$27,899 75

Expenditures.

Painting.....	\$298 75
Books and papers.....	165 65
Hardware.....	174 82
Waterworks.....	475 25
Garden hose and reels.....	201 05
Repairs.....	38 25
Cartmen.....	1,060 00
Improvement of grounds.....	2,066 92
Blasting powder and fuse.....	339 16
Lumber.....	1,240 32
Water pipe and castings.....	1,176 82
Brick, lime, and cement.....	607 20
Interest.....	1,380 90
Rent of telephone.....	100 00
Returned to pay patients.....	240 00
Trees and shrubs.....	253 10
Pasturage.....	60 00
	<hr/>
Carried forward.....	\$9,883 19

Brought forward.....	\$9,883 19
Inspection and insurance of boilers	285 00
Freight	93 70
Horses	570 00
Labor	521 00
Service of stallions	150 00
Rubber boots and coats	54 75
Sewer pipe	189 24
Gravel	30 00
Construction of cistern	467 00
Hire of team	48 00
Pig lead	26 15
Infirmary foundations	3,439 11
Slate for roof of infirmaries	1,117 85
Hot house	722 91
Fencing	125 00
Laying flooring	392 00
Fire hose and reels	126 00
	<hr/>
	\$18,240 90
To balance June 30, 1890.....	<hr/>
	\$9,658 85

The receipts for this fund for the two fiscal years ending with June 30, 1890, amounted to \$25,282, against \$23,353 58 for the two fiscal years ending June 30, 1888, showing an increase of \$1,928 42.

On the fifteenth of December, 1888, Dr. John W. Robertson tendered his resignation as Third Assistant Physician, which was subsequently accepted by the Board. During his term of service at the asylum, Dr. Robertson displayed a commendable interest in the department assigned him, and discharged the responsible duties of his office with marked ability and success.

By authority of an Act of the Legislature, approved March 19, 1889, at the stated meeting the following April the Board appointed Dr. Driesbach Smith, of Los Angeles, as Third Assistant Physician. Dr. Smith is a young man of flattering promise in the profession, and we are happy to say is faithfully and successfully performing the important duties of his office. He receives as a compensation for his services \$125 per month.

At the regular meeting of the Board in October, 1889, after ten years of most faithful and efficient service, Dr. Frederick W. Hatch tendered his resignation of the office of Second Assistant Physician. The Board accepted his resignation with a measure of sorrow and regret, that was only mitigated by the assurance that he was about to enter a broader field of usefulness to the State, by promotion to the position of Medical Superintendent of the State Insane Asylum at Agnews.

At the monthly meeting in February, 1890, Dr. Alden M. Gardner, of Calistoga, was elected to fill the vacancy in the office of Second Assistant Physician. It gives us much pleasure to state that Dr. Gardner fills the office with a zeal, skill, and ability that proves him worthy to succeed his accomplished predecessor.

By authority of a law passed by the last Legislature, on the fourteenth of August, 1889, the Board, in consideration of the payment of \$35 75, sold to the County of Napa, for a public highway, a strip of land across the northeast corner of the asylum premises, containing an area of one and forty-seven hundredths acres.

Under the same law, the Board also sold to James Kennedy the piece of land thereby detached, embracing an area of eight acres, for \$200.

In adjusting the boundary between the asylum estate and land owned by Patrick Golden, on the line of a stone fence belonging to the asylum,

Golden conveyed by gift deed to the State a narrow strip of land containing one acre.

The total area of all lands belonging to the asylum estate is one thousand one hundred and fifty-eight and nineteen-twentieths acres.

Inspired by the broad spirit of an enlightened charity that reflects the highest honor upon the State, the last Legislature made the requisite appropriation of \$28,000 for building and furnishing the long-sought infirmaries, so urgently necessary for the relief of a class of pitiful sufferers committed to our charge. The two infirmaries, one for each sex, are already completed, and within a few weeks will be furnished and occupied.

Since our last biennial report a number of important, desirable improvements have been made. Maple floors have been laid in nine more wards, making in all twenty-one, which leaves only ten in the building with pine floors. These are wearing out and should soon be replaced with maple.

A cistern, with a capacity of ninety thousand gallons, has been constructed for storing the night drainage of the asylum, that it may be distributed in the daytime for irrigating and fertilizing purposes. Besides other improvements, another reservoir, large enough to hold twenty million gallons, is being built. The capacity of the four reservoirs is now more than forty million gallons, and, when completed, will be ample for the storage of fifty million gallons of water.

Accompanying this communication as a part thereof, is the usual interesting, instructive report of Dr. E. T. Wilkins, the Resident Physician. His report gives a complete account of all important matters pertaining to the institution for the two fiscal years just closed, and makes many practicable recommendations for the future management of asylum affairs.

During the fiscal year ending June 30, 1889, one hundred and seventy-seven patients were transferred from this asylum to the State Insane Asylum at Agnews. Number of patients in the asylum June 30, 1890, was one thousand three hundred and forty-four. The daily per capita cost for the fiscal year ending with June 30, 1889, was 41 cents; for the last fiscal year it was 40 cents. The appropriations asked by the Resident Physician for maintenance, for repairs and painting, and for building and furnishing a kitchen adequate to the wants of the asylum, are imperative necessities, and received the earnest indorsement of every member of the Board.

Respectfully submitted.

BENJAMIN SHURTLEFF,
J. C. MARTIN,
J. Q. BROWN,
J. F. LAMDIN,
G. M. FRANCIS,

Trustees.

AUGUST 25, 1890.

TREASURER'S REPORT.

To the honorable Board of Trustees of the Napa State Asylum for the Insane:

GENTLEMEN: I herewith present my report as Treasurer of said asylum for the fiscal years ending June 30, 1889, and June 30, 1890, on account of maintenance, the construction of infirmaries, improvements in floors and hallways, and enlargement of gasworks. Vouchers are in my office for all moneys paid out:

THE TREASURER IN ACCOUNT WITH MAINTENANCE FUND FOR THE FISCAL YEAR ENDING JUNE 30, 1889.

Receipts.

Balance on hand per last report	\$169 98
Received from the State for May, 1888 (deficit)	4,665 77
Received from the State for June, 1888 (deficit)	15,903 70
Received from the State for July, 1888	16,824 55
Received from the State for August, 1888	16,101 78
Received from the State for September, 1888	17,179 44
Received from the State for October, 1888	16,790 62
Received from the State for November, 1888	19,435 29
Received from the State for December, 1888	19,224 65
Received from the State for January, 1889	20,066 33
Received from the State for February, 1889	18,417 73
Received from the State for March, 1889	16,851 71
Received from the State for April, 1889	16,516 84
Received from the State for May, 1889	15,057 57
Received from the State for June, 1889	17,597 90
Total receipts	\$230,803 86

Expenditures.

Paid out on orders of the Board of Trustees	223,353 21
Balance on hand	\$7,450 65

THE TREASURER IN ACCOUNT WITH MAINTENANCE FUND FOR THE FISCAL YEAR ENDING JUNE 30, 1890.

Receipts.

Balance on hand	\$7,450 65
Received from the State for July, 1889	14,231 60
Received from the State for August, 1889	15,178 02
Received from the State for September, 1889	16,467 74
Received from the State for October, 1889	16,174 19
Received from the State for November, 1889	16,657 43
Received from the State for December, 1889	16,272 44
Received from the State for January, 1890	17,556 26
Received from the State for February, 1890	16,293 06
Received from the State for March, 1890	17,131 00
Received from the State for April, 1890	15,172 72
Received from the State for May, 1890	17,125 75
Received from the State for June, 1890	16,711 60
Total receipts	\$202,422 46

Expenditures.

Paid out on orders of the Board of Trustees	194,971 81
Balance on hand	\$7,450 65

THE TREASURER IN ACCOUNT WITH THE INFIRMARY FUND FOR THE
FISCAL YEAR ENDING JUNE 30, 1890.

Receipts.

Received from the State for August, 1889	\$116 50
Received from the State for October, 1889	7,108 93
Received from the State for December, 1889	2,712 86
Received from the State for January, 1890	1,821 60
Received from the State for February, 1890	2,069 28
Received from the State for March, 1890	2,136 33
Received from the State for April, 1890	1,599 30
Received from the State for May, 1890	733 05
Received from the State for June, 1890	1,688 40
Total receipts	\$19,986 25

Expenditures.

Paid out on orders of the Board of Trustees	19,986 25
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THE TREASURER IN ACCOUNT WITH IMPROVEMENT OF GASWORKS FOR
THE FISCAL YEAR ENDING JUNE 30, 1889.

Receipts.

Received from the State for June, 1889	\$1,574 93
Received from the State for July, 1889	79 57
Received from the State for August, 1889	345 50
Total receipts	\$2,000 00

Expenditures.

Paid out on orders of the Board of Trustees	2,000 00
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THE TREASURER IN ACCOUNT WITH IMPROVEMENT OF FLOORS AND
HALLWAYS FOR THE FISCAL YEAR ENDING JUNE 30, 1889.

Receipts.

Received from the State for May, 1889	\$1,284 69
Received from the State for June, 1889	168 00
Received from the State for July, 1889	178 83
Received from the State for August, 1889	368 48
Total receipts	\$2,000 00

Expenditures.

Paid out on orders of the Board of Trustees	2,000 00
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Respectfully submitted.

C. B. SEELEY,
Treasurer.

NAPA, August 13, 1890.

REPORT OF THE RESIDENT PHYSICIAN.

To the honorable Board of Trustees of the Napa State Asylum for the Insane:

GENTLEMEN: Since the date of your last biennial report the flight of time has left two more years behind, of which, as Trustees of this asylum, you have yet to render an account of your stewardship.

ANNUAL SUMMARY.

The following table from my fourteenth annual report, shows the movement of patients for the fiscal year ending June 30, 1889:

FROM JUNE 30, 1888, TO JUNE 30, 1889.

	Males.	Females.	Total.
Number of patients June 30, 1888.....	884	585	1,469
Number admitted during the year.....	253	148	401
Number returned escapes.....	2	1	3
Number under care and treatment.....	1,139	734	1,873
Number discharged, recovered.....	79	35	114
Number discharged, improved.....	37	41	78
Number discharged, unimproved.....	4	2	6
Number discharged, not insane.....	7	4	11
Number died.....	105	33	138
Number removed to Agnews.....	116	61	177
Discharged, died, and removed.....	348	176	524
Number remaining June 30, 1889.....	791	558	1,349

From this table you perceive, for the first time in the history of this asylum, a material decrease in the number of patients during the year. As you are aware, this result is due to the opening of the asylum at Agnews, in Santa Clara County, to which were transferred during the months of October, 1888, and February, 1889, one hundred and seventy-seven patients—one hundred and sixteen men and sixty-one women—leaving upon our books, June 30, 1889, one thousand three hundred and forty-nine patients.

From these facts, we had a right to conclude that with the discharges and deaths, there would be a perceptible decrease in numbers until the proper capacity of this asylum was attained. In this cherished hope, however, we have been disappointed, as will be seen from the following table, showing the movement of patients for the year ending June 30, 1890:

FROM JUNE 30, 1889, TO JUNE 30, 1890.

	Males.	Females.	Total.
Number of patients June 30, 1889	791	558	1,349
Number admitted during the year	190	106	296
Number under care and treatment	981	664	1,645
Number discharged, recovered	84	22	106
Number discharged, improved	34	35	69
Number discharged, unimproved	1	6	7
Number discharged, not insane	5	3	8
Number died	77	26	103
Number eloped	3	—	3
Number removed to Agnews	2	3	5
Discharged, died, and eloped	206	95	301
Number remaining June 30, 1890	775	569	1,344

While the above table shows the smallest number of commitments ever made to this asylum (two hundred and ninety-six), it also shows that the discharges and deaths were less. Hence, the number remaining at the end of the last fiscal year (one thousand three hundred and forty-four) was only five less than at the beginning of the year. This is due to the fact that a large portion of our patients have been inmates for years; many have become chronic, and the percentage of recoveries among them will become less, year by year.

COUNTIES.

Table No. 1 shows that patients were received during the year from thirty counties. San Francisco sent us one hundred and thirty-one. The northern coast counties, including Marin, Sonoma, Mendocino, Humboldt, and Del Norte, thirty-two. The southern counties, Santa Barbara, Ventura, San Diego, Los Angeles, and San Bernardino, thirty-six; and from the remaining nineteen counties, ninety-seven.

NATIVITY.

Table No. 2 shows that the two hundred and ninety-six patients admitted are the representatives of twenty-seven States and twenty-eight foreign countries, divided as follows: United States, one hundred and forty-eight; foreign countries, one hundred and forty; unknown, eight. This also breaks the record, since it is the first time that a greater number of Americans than foreign born have been committed to this asylum.

AGES.

Table No. 3 shows the ages of those committed during the year to range from ten to seventy years, and sustains the fact, that more persons are deprived of their reason between the ages of thirty and forty, than any other period of life, and that the susceptibility to insanity diminishes as you go up or down the line. Yet any age has its liability.

CAUSES.

This is the most unsatisfactory, uncertain, and difficult question with which we have to deal in connection with this mysterious, dangerous, and distressing disease. The manifestation is very often, nay, generally, assigned as the cause of mental derangement, when in reality it is only the effect of the real cause. Heredity, for instance, is not very often assigned as the cause, when in fact we know it is the cause in many cases. The same may be said of alcohol, which, though one of the leading assigned causes, is also the most prolific of all causes in dethroning the reason. Many cases of ill health, domestic infelicity, immorality, vicious habits, and crime have their origin in the use of stimulants, whether whisky, beer, wine, or any other form of alcohol, which, taken immoderately, lead to insanity, either primarily or remotely.

Now, while we know that stimulants have been used from the earliest period of recorded time, and believe it will be to the end of time, we are also satisfied that a bridle can be put upon it by wise municipal regulations and a conservative public opinion.

Prohibition may be, probably is not possible, but high license, very high license, is within the reach of every community, and by this means the low dens, pitfalls, and the sale of stimulants at corner groceries can be stopped, and the evil consequences originating through them greatly ameliorated, to say the least. That the power of the press, aided by honest dealers, wise ordinances, public opinion, and faithful officers, can do much to mitigate the evil and pernicious practices, is in a measure proven by our records.

During the fiscal year ending June 30, 1889, seventeen men and one woman were committed to this asylum who had been addicted to the opium habit. One of the leading daily papers of the City of San Francisco, in several able articles, made a vigorous attack, not only on those who were indulging in this seductive habit, but also upon those who were selling the drug, and, being aided by other papers, so directed public attention to its untold evils that the commitments grew less and less, until they almost ceased. The year ending June 30, 1890, shows that only two men and one woman were sent to us from this cause. Comment is unnecessary.

RECOVERIES AND DEATHS.

The percentage of recoveries was 35.81, and of deaths 6.26, both most favorable under the circumstances. The principal causes of death were organic disease of the brain, consumption, paralysis, and epilepsy, as has always been the case in this asylum.

ESCAPES.

The elopements were few indeed, considering the large number who go out on the grounds, and the liberty allowed them. Indeed, it seems that the disposition to escape diminishes with the freedom granted.

STEWARD'S REPORT.

I respectfully refer you to the report of the Steward, J. M. Palmer, for a clear and itemized account of the purchases, disbursements, and

per capita cost of maintenance. Also, for the products of the farm, garden, dairy, orchard, and vineyard. The continued rains of last winter have been more or less disastrous in some departments. The hay and fruit crops have been diminished at least 50 per cent, while about 4 per cent of the fruit trees have died from the effects of the long wet season. This scarcity of fruits deprives our patients and employes of much pleasure and satisfaction that they have heretofore enjoyed; yet half a crop is better than none, and with it we must be satisfied.

PER CAPITA COST.

From Table No. 3 of the Steward's report you will observe that the per capita cost of maintenance for the year was 41 cents, nearly 1 cent higher than that of the previous year. It only shows that the strictest economy is still practiced in the administration of this asylum.

IMPROVEMENTS.

The most important improvements made during the year are the two infirmaries, the construction of which we have so long desired and so perseveringly sought to obtain. For ten long years we have urged upon each succeeding Legislature the urgent necessity of having these adjuncts to our asylum, that we might be enabled to take better care of a certain class of our patients—the sick and feeble, who require special diet, special attention, and that quiet and freedom from noise which could not be obtained in an ordinary ward.

The last Legislature made an appropriation of \$28,000 to build and furnish these infirmaries, and they are now nearly completed and ready for the furniture. They will comfortably accommodate twenty-five patients each, and by crowding, thirty. Copeland & Pierce, of San Francisco, were the architects, and Corlett & Sons, of Napa, the contractors. The buildings are one-story, and contain eight rooms and two dormitories each, including sitting-room, attendant's-room, kitchen and dining-room; with closets, bath-room, and clothes-room added. The sitting-room, dormitories, and dining-room are to be warmed by open fires, protected by strong screens, which gives them a comfortable and home-like appearance; and if these are found inadequate, other means can be added at small cost. They are built upon stone foundations, three feet above ground, and have a gallery in front. Of course, they will add somewhat to the per capita cost of maintenance, but the benefits to be derived will, in my opinion, more than justify the outlay. They will be occupied sometime in September next.

CISTERN.

The cistern, constructed in the garden, west of the county road, with a capacity of ninety thousand gallons, was for the purpose of securing the water that passed through the asylum at night, that it might be used for irrigating purposes on the lands below, instead of running off into tide water. With its use we are enabled to have green meadows at all seasons of the year.

REPORT OF THE TRUSTEES OF THE
RESERVOIRS.

The construction of another reservoir has been undertaken since your last report, and will add several million gallons to our present supply next season; and when completed, its capacity will be twenty million gallons. It will not only be the most elevated, but most beautiful of the group, and is known as Lake Como. It can be discharged either into Lake Camilla or Lucerne, and if need be, by a separate system of pipes to irrigate lands that cannot be reached by either of the other reservoirs. The great object in view in the construction of these reservoirs, notwithstanding we have an abundant supply for the lawns and flowers, is to increase the quantity of alfalfa for our dairy cows. Good pure milk is among the best articles of food that can be given to the sick; while all are fond of it. And this we cannot have in great abundance without green feed for the cows the whole year.

NEW FLOORS.

New maple floors have been recently laid in five additional wards. There are still ten wards which will require new floors, and I trust we will be able to reach them ere another report will be made.

Material has been purchased for the construction of a stable and hay barn at the ranch, forty by twenty-four feet in size; and a building of like dimensions for the storage of straw for bedding. They will soon be completed and ready for use.

APPROPRIATIONS NEEDED.

In addition to the appropriation for maintenance, which, in my judgment, should not be less than that of two years ago, since we begin the present year with one thousand three hundred and forty-four patients, and cannot expect much relief until one of the asylums provided for by the last Legislature shall be ready for their reception. That in the southern district being far removed from any asylum, should be pushed to completion with all the vigor possible, to avoid the fatigue, danger, and expense involved in transporting insane persons to such a distance, as is now necessary.

NEW KITCHEN AND DINING-ROOM.

The kitchen now in use for this asylum was intended to do the cooking for five hundred patients; but since the population has increased almost three-fold, and will never be less than one thousand two hundred, it is too small to accomplish the work properly. In addition to this objection, it is poorly ventilated, and the odors emanating from it permeate every portion of the executive building, as well as the wards above it.

I submit for your consideration plans for this improvement, drawn at my request by Corlett & Sons, of Napa. It will be one-story, ventilated through the roof, which is to be constructed for the purpose. A dining-room for female attendants will be under the same roof. Also a meat house, which is greatly needed for the preservation of our meats. A scullery and pantry are also provided for. Its cost will be about

\$14,000, besides the furniture, most of which will have to be new, as that in the old kitchen has been in use fifteen years, and must be removed in any event.

Should this improvement be made, the old kitchen can be advantageously fitted up, and used as an associate dining-room for quiet patients. This would vacate a few of the ward dining-rooms, which would, to that extent, relieve the pressure on the wards.

REPAIRS.

Under this head much is needed which cannot be delayed without serious injury to the property under your care.

The galvanized cornice of the entire building needs repairing and repainting. The conducting pipes from the gutters are fast giving out, being made of tin, and should be replaced with iron pipe. Two of the boilers were repaired during the year at a cost of \$750, and two more are liable to give out at any time, as they have been in constant use for fifteen years. Indeed, any building fifteen years old must need constant attention, or it will deteriorate; \$5,000 per annum will probably be required on this account.

RESIGNATIONS AND APPOINTMENTS.

On the fifteenth of November, 1888, Dr. John W. Robertson resigned his position as Third Assistant Physician, for the purpose of engaging in private practice in San Francisco. Having, in a previous report, expressed my appreciation of his accomplishments as a physician, and qualities as a man, it is only necessary for me to express the gratification it affords me to state that he is meeting with success in his practice; surely he has my best wishes.

Dr. Driesbach Smith, an intelligent young physician of Los Angeles, was appointed to succeed Dr. Robertson, in April, 1889. And it affords me pleasure to say that he fills the position most acceptably. He not only performs the duties assigned him with a cheerful and accommodating spirit, but evinces a decided interest in the welfare and success of the institution.

In my opinion it would be greatly to the interest of the asylums of this State if the Boards of Managers were invested with authority to employ one or two promising young graduates of medicine (when deemed necessary), to act as internes each year. A moderate salary would be all that could be required, as the information gained by a year of asylum practice would be of great value to them and a benefit to the asylums.

After more than ten years of active and most efficient service as Second Assistant Physician to this asylum, Dr. F. W. Hatch severed his connection with us to take charge of the Asylum for the Insane at Agnews, in Santa Clara County, on the first of December, 1889. Dr. Hatch had so endeared himself to the officers, employés, and patients of this institution, by a rare combination of admirable qualities, whether in the line of his profession, the active, energetic effort to perfect the organization of the asylum, his affable, agreeable manner and sympathetic nature, that we all felt as if a member of the family had left us, and all knew that we had lost from among us a valued and steadfast friend. Our consolation is, that his valuable services and ripe experi-

ence are not lost to the specialty or the State, since his promotion to a more responsible position and broader field will enable him to make an enviable reputation for himself, by faithful service to the commonwealth, and best treatment of the unfortunates committed to his care.

As all physicians connected with asylums for the insane should possess certain special characteristics and qualifications, not absolutely necessary in ordinary practice, together with a taste for the treatment of mental diseases, the Board of Trustees acted wisely in deferring the election of a physician to fill the position made vacant by the resignation of Dr. Hatch, until a man could be found endowed with all the qualifications deemed necessary to fill the position.

Being satisfied on these points, Dr. A. M. Gardner was duly elected at the regular meeting of the Board in February last, to assume the duties of his office on the first of March, 1890. Dr. Gardner has been practicing medicine and surgery for thirteen years in this county, and had already attained a widespread reputation for ability and skill in his profession; and I am pleased to say that he has entirely fulfilled the promise of our expectations here. His studious habits are constantly adding to his store of knowledge, and his desire to progress in the science of psychiatry gives promise of good results in the future.

CONFERENCE OF ASYLUM MANAGERS.

On the fifteenth of July of the present year, the Superintendents and Boards of Managers of the asylums for the insane, met by agreement to consider and discuss all matters that might be of interest or prove a benefit to the institutions under their care. Dr. H. N. Rucker, Medical Superintendent, and Doctors Young, Phillips, and Hoisholt, Assistant Physicians, of the Stockton Asylum; Dr. E. T. Wilkins, Resident Physician, and Dr. A. M. Gardner, Assistant Physician, of the Napa Asylum; Dr. F. W. Hatch, Medical Director of the Agnews Asylum; Directors Harvey, Dorrance, Johnson, and Thornton, of the Stockton Asylum; Dr. Benjamin Shurtleff and Mr. J. F. Lamdin, Trustees of the Napa Asylum; B. D. Murphy, President of the Board of Trustees of the Asylum at Agnews; Mr. Drew, President of the Board of Trustees of the San Bernardino Asylum, and Mr. Curlett, architect, were present. Dr. G. A. Shurtleff, the honored ex-Superintendent of the Stockton Asylum, was elected an honorary member, and took his seat in the association.

Dr. E. T. Wilkins was elected President, and Dr. F. W. Hatch Secretary. The Association of Superintendents and Boards of Managers of California Hospitals for the Insane was the name of the organization. Various matters of interest were discussed by the association, and committees appointed to report at the next annual meeting.

Committees were appointed as follows:

- On Revising Commitments: Wilkins, Rucker, and Hatch.
- On Revision of Statutes: Murphy, Harvey, and B. Shurtleff.
- On Post Mortems: Gardner, Pratt, and Hoisholt.
- On Advertising and Supplies: Watt, Murphy, and Shurtleff.

After favorably discussing the necessity for completing the asylum for the criminal insane at San Quentin, the importance of establishing training schools for nurses at all of the asylums, and the deportation of insane Mongols, the Association adjourned to meet at Napa, July 15, 1891.

OBLIGATIONS.

A few books, periodicals, and papers have been presented by friends for the use of our patients, for which we return our thanks. But in addition to these, I am impressed with the importance of procuring some pictures and cheap musical instruments, to be placed in the wards, for the diversion of the minds and the amusement of the patients.

As year after year passes away, the continued kindness and support of the Board of Trustees places me under additional obligations to its members, for which I again express my grateful thanks.

Respectfully,

E. T. WILKINS,
Resident Physician.

AUGUST 9, 1890.

APPENDIX.

APPENDICES.

NUMBER OF ADMISSIONS, RECOVERIES, DEATHS, ETC.

The following table exhibits the number of admissions, recoveries, discharges, deaths, elopements, number resident at the close of each year, the increase or decrease for each year, whole number treated each year, and in the aggregate; also, the ratio of recoveries and deaths each year, and for the whole time, from November 15, 1875, to July 1, 1890:

YEARS.	Admissions	Recoveries	Discharges, Uncured	Removed to Asylums	Deaths	Returned Escapes	Escapes	Number Resident at Close of Each Year	Increase	Decrease	Whole Number Treated	Per Cent of Recoveries to Admissions	Per Cent of Deaths on Number Treated
Nov. 15, 1875, to July 1, 1876	321	69	20	—	20	—	4	208	208	—	321	21.49	6.23
July 1, 1876, to July 1, 1877	451	140	71	—	49	—	4	395	187	—	659	31.04	7.43
July 1, 1877, to July 1, 1878	433	148	71	—	70	—	11	528	133	—	828	34.11	8.45
July 1, 1878, to July 1, 1879	615	184	133	—	104	—	8	714	186	—	1,143	29.91	8.22
July 1, 1879, to July 1, 1880	572	189	163	—	91	—	4	839	125	—	1,286	31.29	7.08
July 1, 1880, to July 1, 1881	563	133	122	—	124	—	2	1,021	182	—	1,402	23.62	8.84
July 1, 1881, to July 1, 1882	543	125	161	—	107	—	—	1,172	151	—	1,564	23.02	6.84
July 1, 1882, to July 1, 1883	463	127	174	—	112	—	3	1,219	47	—	1,635	27.43	6.85
July 1, 1883, to July 1, 1884	500	130	177	—	90	—	3	1,319	100	—	1,719	26.00	5.24
July 1, 1884, to July 1, 1885	479	119	155	—	110	—	5	1,409	90	—	1,798	24.84	6.12
July 1, 1885, to July 1, 1886	346	80	121	—	113	—	5	1,436	27	—	1,755	23.12	6.43
July 1, 1886, to July 1, 1887	363	95	146	—	98	—	6	1,454	18	—	1,799	26.17	5.53
July 1, 1887, to July 1, 1888	355	86	126	—	117	—	11	1,469	15	—	1,809	24.22	6.47
July 1, 1888, to July 1, 1889	401	114	95	177	138	3	—	1,349	—	120	1,873	28.17	6.94
July 1, 1889, to July 1, 1890	296	106	84	5	103	—	3	1,344	—	5	1,645	35.81	6.26

TABLE I.

Showing the counties from which four hundred and one patients were admitted, from July 1, 1888, to July 1, 1889.

COUNTIES.	Males.	Females.	Total.
Alameda	8	2	10
Butte	1	—	1
Colusa	3	1	4
Contra Costa	10	2	12
Del Norte	1	—	1
Humboldt	9	4	13
Kern	1	—	1
Lake	1	—	1
Los Angeles	—	2	2
Marin	1	1	2
Mendocino	7	4	11
Modoc	1	—	1
Napa	15	9	24
Placer	—	3	3
Plumas	1	1	2
Sacramento	6	4	10
San Benito	2	—	2
San Bernardino	3	3	6
San Diego	3	2	5
San Francisco	117	78	195
San Luis Obispo	5	1	6
San Mateo	2	1	3
Santa Barbara	6	2	8
Santa Clara	7	7	14
Santa Cruz	5	1	6
Shasta	1	1	2
Sierra	1	—	1
Siskiyou	1	1	2
Solano	15	4	19
Sonoma	9	6	15
Tehama	2	1	3
Trinity	2	—	2
Tulare	1	—	1
Ventura	4	—	4
Yolo	2	4	6
Yuba	—	3	3
Totals	253	148	401

TABLE II.

Showing the nativity of four hundred and one patients admitted from July 1, 1888, to July 1, 1889.

NATIVITY.	Males.	Females.	Total.
<i>United States.</i>			
California	43	23	66
Connecticut	1	1	2
District of Columbia	1	—	1
Illinois	5	2	7
Indiana	3	2	5
Iowa	2	1	3
Kansas	—	1	1
Kentucky	—	1	1
Maine	6	1	7
Maryland	1	—	1
Massachusetts	5	3	8
Michigan	1	3	4
Minnesota	—	1	1
Mississippi	1	—	1
Missouri	3	4	7
New Jersey	1	—	1
New York	15	11	26
North Carolina	2	1	3
Ohio	4	2	6
Oregon	—	1	1
Rhode Island	1	—	1
Pennsylvania	8	1	9
Tennessee	1	—	1
United States	8	6	14
Vermont	3	2	5
Virginia	2	2	4
Wisconsin	3	2	5
Utah Territory	—	1	1
Totals	120	72	192
<i>Foreign Countries.</i>			
Austria	1	1	2
Azores Islands	3	—	3
Belgium	1	—	1
Bohemia	1	—	1
Canada	7	1	8
Chili	—	1	1
China	8	—	8
Denmark	2	—	2
England	10	7	17
Finland	2	1	3
France	8	2	10
Germany	23	8	31
Holland	1	—	1
Ireland	27	38	65
Isle of Man	—	1	1
Italy	3	—	3
Jamaica	1	—	1
Japan	2	—	2
Mexico	1	1	2
New Brunswick	1	1	2
Norway	6	3	9
Nova Scotia	—	1	1
Poland	1	—	1
Portugal	1	1	2
Prussia	1	—	1
Russia	—	1	1
Scotland	3	—	3
Spain	1	—	1
Sweden	4	4	8
Switzerland	4	1	5
Unknown	10	2	12
Wales	—	1	1
Totals	133	76	209

RECAPITULATION.

NATIVITY.	Males.	Females.	Total.
United States.....	120	72	192
Foreign countries.....	123	74	197
Unknown.....	10	2	12
Totals.....	253	148	401

TABLE III.

Showing the ages of four hundred and one patients at the time of their admission into the Asylum, from July 1, 1888, to July 1, 1889.

AGES.	Males.	Females.	Total.
Between 10 and 20 years.....	15	5	20
Between 20 and 30 years.....	65	42	107
Between 30 and 40 years.....	62	39	101
Between 40 and 50 years.....	44	30	74
Between 50 and 60 years.....	33	18	51
Between 60 and 70 years.....	16	10	26
Between 70 and 80 years.....	4	1	5
Between 80 and 90 years.....	2	1	3
Unknown.....	12	2	14
Totals.....	253	148	401

TABLE IV.

Showing the supposed causes of insanity in four hundred and one patients, as stated in commitments, from July 1, 1888, to July 1, 1889.

SUPPOSED CAUSES.	Males.	Females.	Total.
Abortion.....		1	1
Business trouble.....	8		8
Change of life.....		3	3
Child birth.....		2	2
Death of relatives.....		4	4
Disappointment in love.....	1	2	3
Domestic trouble.....	1	9	10
Epilepsy.....	7	2	9
Fright.....		2	2
Hereditary.....	8	8	16
Ill health.....	1	4	5
Injury to head.....	11	3	14
Intemperance.....	18	3	21
Masturbation.....	31	1	32
Old age.....	2	1	3
Over study.....	2		2
Paralysis.....	1		1
Puerperal condition.....		1	1
Religion.....	5	13	18
Spiritualism.....	1	2	3
Sunstroke.....	1		1
Suppressed menstruation.....		5	5
Syphilis.....		1	1
Unknown.....	138	74	212
Use of morphine.....	17	1	18
Uterine trouble.....		6	6
Totals.....	253	148	401

TABLE V.

Showing the class of insanity of four hundred and one patients, as stated in commitments, from July 1, 1888, to July 1, 1889.

CLASS.	Males.	Females.	Total.
Dementia.....	20	8	28
Mania.....	144	80	224
Melancholia.....	20	24	44
Monomania.....	12	4	16
Puerperal mania.....		5	5
Senile dementia.....	2		2
Unknown.....	55	27	82
Totals.....	253	148	401

TABLE VI.

Showing the civil condition of four hundred and one patients admitted from July 1, 1888, to July 1, 1889.

CIVIL CONDITION.	Males.	Females.	Total.
Divorced.....	3	3	6
Married.....	52	74	126
Single.....	173	50	223
Unknown.....	17	4	21
Widows.....		17	17
Widowers.....	8		8
Totals.....	253	148	401

TABLE VII.

Showing the occupation of four hundred and one patients admitted from July 1, 1888, to July 1, 1889.

OCCUPATION.	Males.	Females.	Total.
Agents	2		2
Barbers	5		5
Barkeepers	2		2
Blacksmiths	1		1
Boilermakers	1		1
Bookkeepers	4		4
Brewers	1		1
Butchers	1		1
Carpenters	6		6
Clerks	5		5
Cooks	3	1	4
Coopers	1		1
Dairymen	2		2
Domestics		26	26
Engineers	3		3
Farmers	23		23
Gardeners	2		2
Housewives		75	75
Laborers	95		95
Laundrymen	2		2
Lawyers	2		2
Machinists	2		2
Merchants	7		7
Miners	3		3
No occupation	27	30	57
Painters	3		3
Peddlers	1		1
Physicians	2		2
Plasterers	1		1
Plumbers	1		1
Sailors	14		14
Seamstresses		5	5
Servants	1	6	7
Sheepherders	1		1
Shoemakers	3		3
Students	1	1	2
Tailors	1		1
Teachers	3	2	5
Tinsmiths	1		1
Unknown	15	2	17
Upholsterers	1		1
Waiters	4		4
Totals	253	148	401

TABLE VIII.

Showing the cause of death of one hundred and thirty-eight patients, from July 1, 1888, to July 1, 1889.

MONTH.	Cause of Death.	Nativity.	Age.	Male	Female
July, 1888	Consumption	Switzerland	32	1	
July, 1888	Maniacal exhaustion	Ireland	27		1
July, 1888	Epilepsy	California	18	1	
July, 1888	Paralysis	England	56	1	
July, 1888	Inanition	California	20	1	
July, 1888	Exhaustion	United States	57	1	
July, 1888	Epilepsy	Pennsylvania	41	1	
July, 1888	Epilepsy	British America	25	1	
July, 1888	Exhaustion	New York	62		1
July, 1888	Organic diseases of brain	Ireland	52	1	
July, 1888	Pleurisy	Ireland	38		1
July, 1888	Maniacal exhaustion	Ireland	23		1
July, 1888	Maniacal exhaustion	England	27		1
August, 1888	General paresis	Germany	52	1	
August, 1888	Dysentery	Missouri	38	1	
August, 1888	Abscess of brain	New York	36	1	
August, 1888	Paralysis	Maine	39	1	
August, 1888	Consumption	Ireland	38	1	
August, 1888	Dropsy	Holland	38	1	
August, 1888	General paresis	Norway	47	1	
August, 1888	Consumption	Switzerland	40	1	
August, 1888	Apoplexy	Switzerland	25	1	
August, 1888	Consumption	Wales	28	1	
August, 1888	Exhaustion	Ireland	37	1	
September, 1888	Exhaustion	China	42	1	
September, 1888	Exhaustion	Germany	63	1	
September, 1888	Organic disease of brain	Ohio	34	1	
September, 1888	General paresis	United States	41	1	
September, 1888	Organic disease of brain	Indiana	17		1
September, 1888	Paralysis	Germany	56		1
September, 1888	Epilepsy	United States	28	1	
September, 1888	Organic disease of brain	Switzerland	42		1
September, 1888	Exhaustion	Austria	28	1	
September, 1888	Old age	New Hampshire	80	1	
September, 1888	Organic disease of brain	Ireland	49	1	
September, 1888	Organic disease of brain	France	61	1	
September, 1888	Consumption	South Carolina	37	1	
October, 1888	Organic disease of brain	New York	73	1	
October, 1888	Paralysis	Denmark	59	1	
October, 1888	Organic disease of brain	Germany	45	1	
October, 1888	Paralysis	Ireland	38	1	
October, 1888	Cancer	Scotland	46		1
October, 1888	Paralysis	Missouri	32	1	
October, 1888	Maniacal exhaustion	England	51	1	
October, 1888	Organic disease of brain	Newfoundland	48	1	
October, 1888	Exhaustion	California	18	1	
October, 1888	Exhaustion	Germany	48		1
October, 1888	Organic disease of brain	Germany	27	1	
October, 1888	Epilepsy	California	29	1	
October, 1888	Exhaustion	France	45	1	
October, 1888	Concussion of brain	Ireland	61	1	
October, 1888	Consumption	California	25		1
October, 1888	Paralysis	Germany	78	1	
October, 1888	Exhaustion	Connecticut	69	1	
November, 1888	Exhaustion	New York	71	1	
November, 1888	Organic disease of brain	Ireland	38		1
November, 1888	Dysentery	Maine	40	1	
November, 1888	Paralysis	France	41	1	
November, 1888	Maniacal exhaustion	Vermont	62	1	
November, 1888	Paralysis	Germany	52		1
November, 1888	Paralysis	Ireland	54		1
November, 1888	Old age	Maryland	86	1	
November, 1888	Organic disease of brain	Vermont	67	1	
November, 1888	Dysentery	Germany	30	1	
November, 1888	Exhaustion	China	50	1	

TABLE VIII—Continued.

MONTH.	Cause of Death.	Nativity.	Age.	Male	Female
December, 1888	Paralysis	France	43		1
December, 1888	Paralysis	New York	35		1
December, 1888	Blood poisoning	Maine	62	1	
December, 1888	Old age	Ireland	71		1
December, 1888	Old age	Germany	74		1
December, 1888	Organic disease of brain	New York	53	1	
December, 1888	Paralysis	Ohio	55	1	
December, 1888	Exhaustion	Michigan	70	1	
December, 1888	General paresis	United States	44		1
January, 1889	Consumption	China	26	1	
January, 1889	General paresis	Pennsylvania	53	1	
January, 1889	Exhaustion	New Jersey	59	1	
January, 1889	Epilepsy	Germany	48	1	
January, 1889	Suicide	Germany	44	1	
January, 1889	Organic disease of brain	Ireland	40		1
January, 1889	Congestion of liver	Germany	64		1
January, 1889	Consumption	Texas	40		1
January, 1889	Exhaustion	Germany	84	1	
January, 1889	Heart disease	England	72	1	
January, 1889	Consumption	Japan	32	1	
January, 1889	Consumption	China	34	1	
January, 1889	Organic disease of brain	United States	58	1	
January, 1889	Paralysis	Unknown		1	
January, 1889	Consumption	Ireland	34		1
January, 1889	Organic disease of brain	New York	60	1	
January, 1889	Organic disease of brain	Ohio	52	1	
January, 1889	Consumption	Ireland	38	1	
January, 1889	Exhaustion	California	19		1
February, 1889	Organic disease of brain	Finland		1	
February, 1889	Exhaustion	California	32		1
February, 1889	Consumption	Germany	31	1	
February, 1889	Consumption	Ireland	43		1
February, 1889	Consumption	United States	28	1	
February, 1889	Epilepsy	Ireland	40	1	
February, 1889	Inanition	Kansas	27		1
February, 1889	Exhaustion	Connecticut	81	1	
February, 1889	Organic disease of brain	New York	38	1	
February, 1889	Consumption	France	42	1	
February, 1889	Exhaustion	Unknown		1	
March, 1889	Exhaustion	Maine	31	1	
March, 1889	Exhaustion	Ireland	60		1
March, 1889	Consumption	Ireland	43	1	
March, 1889	Consumption	Sweden	26		1
March, 1889	Consumption	Ireland	27		1
March, 1889	Organic disease of brain	England	58	1	
March, 1889	Consumption	Ohio	47	1	
March, 1889	Epilepsy	California	32	1	
March, 1889	Organic disease of brain	Ireland	61	1	
April, 1889	General paresis	France	51		1
April, 1889	Pericarditis	Ohio	78	1	
April, 1889	General paresis	Ireland	38	1	
April, 1889	Consumption	Hanover	64	1	
April, 1889	Consumption	Germany	26	1	
April, 1889	Suicide	Germany	47	1	
May, 1889	Exhaustion	Maine	33	1	
May, 1889	Consumption	Portugal	35	1	
May, 1889	Old age	Ireland	77	1	
May, 1889	General paresis	Germany	44	1	
May, 1889	Apoplexy	Ireland	66		1
May, 1889	Organic disease of brain	North Carolina	70	1	
May, 1889	Exhaustion	Tennessee	53	1	
May, 1889	Paralysis	Germany	63	1	
May, 1889	Exhaustion	Portugal	50	1	
May, 1889	Consumption	Ireland	44	1	
May, 1889	Organic disease of brain	Illinois	42	1	
May, 1889	Consumption	China	36	1	
May, 1889	Marasmus	United States	45	1	
June, 1889	Consumption	Canada	48	1	

TABLE VIII—Continued.

MONTH.	Cause of Death.	Nativity.	Age.	Male	Female
June, 1889	Exhaustion	Ohio	58	1	
June, 1889	Organic disease of brain	Illinois	35	1	
June, 1889	Organic disease of brain	Unknown	47	1	
June, 1889	Exhaustion	Ireland	59		1
June, 1889	Cerebral congestion	Ireland	30	1	

TABLE IX.

Recapitulation of the causes of death of one hundred and thirty-eight patients, from July 1, 1888, to July 1, 1889.

CAUSE OF DEATH.	Males.	Females.	Total.
Apoplexy		1	1
Consumption	21	5	26
Dysentery	3		3
Epilepsy	8		8
Exhaustion	20	6	26
General paresis	6	2	8
Heart disease	1		1
Maniacal exhaustion	2	3	5
Old age	3	2	5
Organic disease of brain	21	4	25
Paralysis	9	5	14
All other causes	11	5	16
Totals	105	33	138

STATEMENT

Showing the number of articles made in the sewing-room from July 1, 1888, to July 1, 1889.

ARTICLES.	Number.
Aprons	1,310
Bath towels	326
Bedticks	107
Brown sheets	1,558
Bed napkins	117
Chemise	624
Canvas mats	1
Counterpanes	178
Cotton flannel shirts	467
Camisoles	14
Drawers	379
Dresses	418
Flannel skirts	215
Linen tablecloths	38
Mattress ticks	135
Nightgowns	289
Pillowslips (check)	611
Pillowslips (white)	631
Roller towels	321
Sacques	81
Shrouds	56
Skirts	124
Shirts	112
Sunbonnets	216
Waterproof capes	71
White sheets	79

STEWARD'S REPORT.

TABLE FIRST.

Amount of articles purchased and consumed, and other expenses, for the fiscal year ending June 30, 1889.

ARTICLES.	Value.
Flour	\$10,034 45
Meat	34,892 36
Sugar	3,534 05
Tea	1,256 38
Syrup	1,612 58
Potatoes	2,235 61
Butter	8,190 11
Coffee and chicory	3,275 28
Lard	54 48
Fish	673 35
Poultry and eggs	3,951 70
Beans	979 54
Rice and cracked wheat	1,431 55
Cornmeal and oatmeal	1,129 41
Fruit	625 44
Salt	158 32
Vinegar and pickles	252 91
Small groceries	888 73
Soap	1,723 63
Drugs	1,305 18
Liquor and ale	389 51
Tobacco	1,125 93
Dry goods	4,516 46
Clothing and hats	4,624 19
Shoes and leather	2,356 52
Blankets	156 55
Furniture and crockery	385 53
Hardware and tinware	999 23
Spoons and cutlery	65 24
Carpeting	823 87
Grain and feed	1,138 77
Garden tools and seed	420 07
Lumber	642 56
Repairs	382 37
Brooms and brushes	444 04
Books and stationery	68 55
Gas	3,662 65
Paints, oil, and glass	647 04
Fuel	16,934 89
Bedding	93 49
Castings, pipe, and iron	505 39
Payroll	85,135 06
Returned escapes	169 95
Discharged patients	306 35
Trustees' services and mileage	688 20
Telegraphing, telephoning, postage, freight, and expressage	625 97
Ice	125 54
Advertising	300 00
Tule hay	339 62
Double-gear drill	50 00
Transfer of patients to Agnews Asylum	561 95
Harness	26 00
Cart	32 50
Labor	77 75
Sewing machines	105 00
Expense of patients to circus	21 00
Fire hose	165 00
Miscellaneous	1,005 02
Total	\$208,322 82

TABLE SECOND.

Showing the cost of the different departments for the fiscal year ending June 30, 1889.

DEPARTMENTS.	Cost.
Kitchen and dining-room.....	\$64,734 74
Wards.....	15,027 68
Bakery.....	10,232 32
Laundry.....	1,014 47
Engine-room.....	163 00
Farm, garden, dairy, and stable.....	1,855 98
Trustees' salaries.....	688 20
Repairs.....	2,407 06
Drug store.....	1,515 96
Center building.....	1,117 64
Office.....	700 75
Payroll.....	85,135 06
Returned escapes.....	169 95
Discharged patients.....	306 35
Fuel.....	16,795 74
Gas.....	3,662 69
Coombs ranch.....	115 78
Tin shop.....	285 25
Night watch.....	43 15
Advertising.....	300 00
Miscellaneous.....	1,164 87
Blacksmith shop.....	324 28
Transferring patients to Agnews.....	561 95
Total.....	\$208,322 82

TABLE THIRD.

Averages for the fiscal year ending June 30, 1889.

MONTHS.	Average Number of Patients Daily	Average Daily Ex- penses	Average Cost per Capita per Day	Average Cost per Capita per Month
1888—July.....	1,461	\$541 28	\$0 37	\$11 47
August.....	1,475	529 72	35 ⁹ / ₁₀	11 13
September.....	1,475	549 26	37 ³ / ₁₀	11 19
October.....	1,468	556 32	37 ³ / ₁₀	11 75
November.....	1,405	629 42	44 ⁸ / ₁₀	13 47
December.....	1,406	627 32	44 ⁶ / ₁₀	13 82
1889—January.....	1,410	614 46	34 ⁶ / ₁₀	13 51
February.....	1,366	652 10	47 ¹ / ₁₀	13 36
March.....	1,315	545 84	41 ⁵ / ₁₀	12 87
April.....	1,319	584 77	44 ³ / ₁₀	13 29
May.....	1,334	511 31	38 ³ / ₁₀	11 87
June.....	1,348	514 90	38 ⁷ / ₁₀	11 46
Yearly averages.....	1,398	\$571 39	\$0 41	\$12 43

TABLE FOURTH.

Products of the farm, garden, and dairy, for the fiscal year ending June 30, 1889.

ARTICLES.	Amount.
Apples, pounds	5,968
Apricots, pounds	500
Almonds, pounds	45
Asparagus, pounds	2,852
Blackberries, pounds	845
Beets (table), pounds	12,076
Beets (cow), pounds	143,280
Beans, pounds	2,977
Cabbage, pounds	67,115
Carrots, pounds	16,944
Cherries, pounds	970
Currants, pounds	8
Corn, dozen	830
Corn fodder, pounds	140,000
Celery, pounds	4,341
Cauliflower, pounds	5,924
Chickens, dozen	15
Ducks	2
Eggs, dozen	862
Figs, pounds	120
Grapes, pounds	42,920
Gooseberries, pounds	60
Hay, tons	305
Lettuce, pounds	4,123
Milk, gallons	26,440
Melons	300
Nectarines, pounds	680
Okra	469
Onions, pounds	26,777
Oyster plant, pounds	111
Parsley, pounds	128
Potatoes (sweet), pounds	2,354
Parsnips, pounds	863
Peppers, pounds	957
Pease, pounds	1,531
Plums, pounds	1,320
Peaches, pounds	3,320
Quinces, pounds	50
Rhubarb, pounds	218
Raspberries, pounds	460
Radishes, pounds	2,048
Strawberries, pounds	66
Squash, pounds	362
Tomatoes, pounds	20,136
Turnips, pounds	23,418
Pork sold	\$300
Cows and calves sold	\$354

REPORTS JULY 1, 1889, TO JULY 1, 1890.

RESIDENT PHYSICIAN'S REPORT.

TABLE I.

Showing the counties from which two hundred and ninety-six patients were admitted, from July 1, 1889, to July 1, 1890.

COUNTIES.	Males.	Females.	Total.
Alameda	4	7	11
Amador		1	1
Butte		1	1
Colusa	4	1	5
Contra Costa	5	1	6
Del Norte	1		1
Fresno	1	1	2
Humboldt	5	1	6
Lassen	2	1	3
Los Angeles	4	9	13
Marin		1	1
Merced		1	1
Mendocino	6	1	7
Napa	9	3	12
Placer	4		4
Plumas	1	1	2
Sacramento	10	3	13
San Bernardino	4	1	5
San Diego	5	2	7
San Francisco	73	58	131
San Joaquin		1	1
Santa Barbara	3	4	7
Shasta	2		2
Siskiyou	4		4
Solano	11	1	12
Sonoma	13	4	17
Tehama	9		9
Ventura	3	1	4
Yolo	5		5
Yuba	2	1	3
Totals	190	106	296

TABLE II.

Showing the nativity of two hundred and ninety-six patients admitted from July 1, 1889, to July 1, 1890.

NATIVITY.	Males.	Females.	Total.
<i>United States.</i>			
Arkansas		2	2
California	25	14	39
Connecticut	1		1
Delaware	1		1
Florida	1		1
Illinois	4	2	6
Indiana	2	2	4
Iowa	2	1	3
Kansas	1		1
Kentucky	2		2
Maine	2	1	3
Maryland	1		1
Massachusetts	3	3	6
Michigan	1	1	2
Minnesota		1	1
Missouri	1	3	4
New Hampshire	1		1
New Jersey		1	1
New York	7	9	16
Ohio	6	1	7
Oregon	1		1
Pennsylvania	4		4
Tennessee	6		6
Texas	1	1	2
United States	10	10	20
Vermont	2	2	4
Virginia	2	2	4
Wisconsin	3	2	5
Totals	90	58	148
<i>Foreign Countries.</i>			
Australia	1		1
Austria	1		1
Azores Islands	1		1
British Columbia	1		1
Canada	4	2	6
China	6		6
Denmark	3	1	4
England	8	4	12
France	6	1	7
Germany	20	9	29
Holland		1	1
Ireland	19	25	44
Italy	2		2
Japan	1		1
Mexico	2		2
New Brunswick	1		1
New Mexico	1		1
New Zealand	1		1
Norway	1		1
Nova Scotia		1	1
Poland	2		2
Portugal	1		1
Prussia	2	1	3
Sandwich Islands	1		1
Sweden	6	1	7
Switzerland	1	1	2
Unknown	7	1	8
Wales	1		1
Totals	100	48	148

RECAPITULATION.

NATIVITY.	Males.	Females.	Total.
United States	90	58	148
Foreign countries	93	47	140
Unknown	7	1	8
Totals	190	106	296

TABLE III.

Showing the ages of two hundred and ninety-six patients at the time of their admission into the Asylum, from July 1, 1889, to July 1, 1890.

AGES.	Males.	Females.	Total.
Between 10 and 20 years	5	5	10
Between 20 and 30 years	43	21	64
Between 30 and 40 years	50	36	86
Between 40 and 50 years	48	19	67
Between 50 and 60 years	22	16	38
Between 60 and 70 years	14	6	20
Between 70 and 80 years	3	2	5
Unknown	5	1	6
Totals	190	106	296

TABLE IV.

Showing the supposed causes of insanity in two hundred and ninety-six patients, as stated in commitments, from July 1, 1889, to July 1, 1890.

SUPPOSED CAUSES.	Males.	Females.	Total.
Business trouble	5	2	7
Change of life		5	5
Child birth		5	5
Death of relatives		3	3
Disappointment in love	1	1	2
Domestic trouble	4	4	8
Epilepsy	5	3	8
Hereditary	13	5	18
Ill health		2	2
Injury to head	9		9
Intemperance	16	6	22
Masturbation	17	1	18
Over study		1	1
Paralysis		1	1
Religion	2	3	5
Spiritualism	2	1	3
Sunstroke	4		4
Suppressed menstruation		3	3
Syphilis	2	2	4
Unknown	108	52	160
Use of opium	2	1	3
Uterine trouble		5	5
Totals	190	106	296

TABLE V.

Showing the class of insanity of two hundred and ninety-six patients, as stated in commitments, from July 1, 1889, to July 1, 1890.

CLASS.	Males.	Females.	Total.
Dementia.....	23	4	27
Mania.....	93	56	149
Melancholia.....	16	12	28
Monomania.....	7	2	9
Puerperal mania.....		3	3
Senile dementia.....	2	1	3
Unknown.....	49	28	77
Totals.....	190	106	296

TABLE VI.

Showing the civil condition of two hundred and ninety-six patients admitted from July 1, 1889, to July 1, 1890.

CIVIL CONDITION.	Males.	Females.	Total.
Divorced.....	2	5	7
Married.....	41	66	107
Single.....	123	24	147
Unknown.....	23	1	24
Widows.....		10	10
Widowers.....	1		1
Totals.....	190	106	296

TABLE VII.

Showing the occupation of two hundred and ninety-six patients admitted from July 1, 1889, to July 1, 1890.

OCCUPATION.	Males.	Females.	Total.
Agents	2		2
Architects	1		1
Artists	1		1
Bakers	1		1
Barkeepers	3		3
Butchers	3		3
Carpenters	3		3
Clerks	9		9
Cooks	5		5
Coopers	1		1
Domestics		5	5
Engineers	3		3
Farmers	21	1	22
Gardeners	1		1
Harnessmakers	2		2
Hotel keepers	4		4
Housewives		73	73
Laborers	72		72
Laundrymen	1		1
Machinists	1		1
Merchants	2		2
Miners	1		1
No occupation	14	17	31
Painters	7		7
Plasterers	2		2
Plumbers	2		2
Sailors	5		5
Seamstresses		4	4
Servants	4	2	6
Shoemakers	1		1
Stone cutters	1		1
Students		1	1
Tailors	1		1
Teachers		1	1
Unknown	14	2	16
Upholsterers	2		2
Totals	190	106	296

TABLE VIII.

Showing the cause of death of one hundred and three patients, from July 1, 1889, to July 1, 1890.

MONTH.	Cause of Death.	Nativity.	Age.	Male	Female
July, 1889	Exhaustion	Ireland	60		1
July, 1889	Exhaustion	Massachusetts	62	1	
July, 1889	Consumption	Norway	41		1
July, 1889	Epilepsy	California	23	1	
July, 1889	Organic disease of brain	Massachusetts	60	1	
August, 1889	Maniacal exhaustion	Ireland	26		1
August, 1889	Acute atrophy of liver	Ireland	37	1	
August, 1889	Exhaustion	Ohio	58		1
August, 1889	Organic disease of brain	Scotland	51	1	
August, 1889	Organic disease of brain	England	44	1	
August, 1889	Organic disease of brain	Italy	50	1	
August, 1889	Dysentery	Germany	47	1	
August, 1889	Exhaustion	Prussia	48	1	
August, 1889	Consumption	Scotland	41	1	
August, 1889	Organic disease of brain	Ireland	50		1
August, 1889	Organic disease of brain	Ohio	46	1	
August, 1889	Organic disease of brain	Ohio	65	1	
August, 1889	Cancer	Ireland	56	1	
August, 1889	Organic disease of brain	Austria	35	1	
September, 1889	Dysentery	Ireland	74		1
September, 1889	Paralysis	Pennsylvania	49	1	
September, 1889	Consumption	Germany	35	1	
September, 1889	Organic disease of brain	Wisconsin	32	1	
September, 1889	Consumption	Ireland	35		1
September, 1889	Consumption	China	31	1	
October, 1889	Consumption	Denmark	38	1	
October, 1889	Epilepsy	New York	59	1	
October, 1889	Organic disease of brain	Italy	62		1
October, 1889	Organic disease of brain	Illinois	59	1	
October, 1889	Exhaustion	California	35		1
October, 1889	Paralysis	Virginia	48	1	
November, 1889	Paralysis	France	51		1
November, 1889	Paralysis	Canada	47	1	
November, 1889	Organic disease of brain	Ohio	46	1	
November, 1889	Organic disease of brain	Missouri	51	1	
November, 1889	Exhaustion	Italy	45		1
November, 1889	Pneumonia	Missouri	73	1	
November, 1889	Hemorrhage of lungs	New York	53	1	
November, 1889	Old age	France	78	1	
November, 1889	Consumption	Missouri	24	1	
November, 1889	Enteritis	Oregon	36	1	
December, 1889	Maniacal exhaustion	Pennsylvania	41	1	
December, 1889	Organic disease of brain	Rhode Island	73	1	
December, 1889	Epilepsy	California	29		1
December, 1889	Exhaustion	California	18	1	
December, 1889	Organic disease of brain	Connecticut	42	1	
December, 1889	Consumption	California	26	1	
January, 1890	Consumption	England	28	1	
January, 1890	Exhaustion	Ireland	40	1	
January, 1890	Pneumonia	Germany	42		1
January, 1890	Organic disease of brain	Germany	38	1	
January, 1890	Exhaustion	Massachusetts	37		1
January, 1890	Organic disease of brain	Ireland	45	1	
January, 1890	Organic disease of brain	Ohio	39	1	
January, 1890	Exhaustion	Ireland	53	1	
January, 1890	Consumption	Germany	47		1
January, 1890	Paralysis	Mexico	55	1	
January, 1890	Consumption	Ireland	42	1	
February, 1890	Consumption	Finland	39	1	
February, 1890	Organic disease of brain	California	21	1	
February, 1890	Consumption	Italy	47	1	
February, 1890	Organic disease of brain	New York	59		1
February, 1890	Maniacal exhaustion	Massachusetts	36	1	
February, 1890	Organic disease of brain	China	37	1	
February, 1890	Organic disease of brain	Germany	30	1	

TABLE VIII—Continued.

MONTH.	Cause of Death.	Nativity.	Age.	Male	Female
March, 1890	General paresis	Illinois	42	1	
March, 1890	Organic disease of brain	Indiana	27	1	
March, 1890	Paralysis	Ireland	56	1	
March, 1890	Consumption	Canada	43	1	
March, 1890	Exhaustion	Ireland	48		1
March, 1890	Exhaustion	Ohio	50	1	
March, 1890	Exhaustion	Vermont	40	1	
March, 1890	Epilepsy	Canada	46	1	
March, 1890	Epilepsy	Scotland	53		1
March, 1890	Exhaustion	Ireland	44	1	
March, 1890	Maniacal exhaustion	Ireland	42		1
March, 1890	Paralysis	Alsace	50	1	
March, 1890	Consumption	Massachusetts	39		1
April, 1890	Consumption	China	30	1	
April, 1890	Consumption	Germany	37	1	
April, 1890	Exhaustion	Massachusetts	60		1
April, 1890	Consumption	Unknown		1	
April, 1890	Anæmia	Massachusetts	47		1
April, 1890	Apoplexy	Virginia	52	1	
April, 1890	Consumption	Italy	36	1	
April, 1890	Maniacal exhaustion	New Brunswick	66	1	
April, 1890	Heart failure	Washington	28	1	
May, 1890	Organic disease of brain	Greece	38	1	
May, 1890	Exhaustion	Virginia	41		1
May, 1890	Exhaustion	Illinois	19	1	
May, 1890	General paresis	Michigan	28		1
May, 1890	Exhaustion	Azores Islands	49	1	
June, 1890	Exhaustion	Indiana	40	1	
June, 1890	Organic disease of brain	Ireland	38	1	
June, 1890	Organic disease of brain	Italy	40	1	
June, 1890	Gangrene	Nova Scotia	60		1
June, 1890	Exhaustion	Illinois	33		1
June, 1890	Epilepsy	Iowa	28	1	
June, 1890	Consumption	Unknown		1	
June, 1890	General paresis	England	39	1	
June, 1890	Organic disease of brain	France	58	1	
June, 1890	Consumption	Ireland	53	1	
June, 1890	Organic disease of brain	France	43	1	

TABLE IX.

Recapitulation of the causes of death of one hundred and three patients, from July 1, 1889, to July 1, 1890.

CAUSE OF DEATH.	Males.	Females.	Total.
Consumption	17	4	21
Epilepsy	4	2	6
Exhaustion	11	9	20
General paralysis	2	1	3
Old age	1		1
Organic disease of brain	24	3	27
Paralysis	6	1	7
All other causes	12	6	18
Totals	77	26	103

STATEMENT

Showing the number of articles made in the sewing-room, from July 1, 1889, to July 1, 1890.

ARTICLES.	Number.
Aprons.....	979
Bath towels.....	190
Bed ticks.....	94
Brown sheets.....	2,388
Carpet mats.....	4
Camisoles.....	20
Chemise.....	582
Cotton flannel shirts.....	418
Counterpanes.....	241
Drawers.....	502
Dresses.....	400
Flannel skirts.....	337
Linen table cloths.....	63
Mattress ticks.....	119
Nightgowns.....	268
Pillow slips (check).....	606
Pillow slips (white).....	764
Pillow ticks.....	66
Roller towels.....	486
Sacques.....	27
Shirts.....	148
Shrouds.....	61
Skirts.....	23
Suspenders.....	24
Sun bonnets.....	150
Waterproof capes.....	45
White sheets.....	100

STEWARD'S REPORT.

TABLE FIRST.

Amount of articles purchased and consumed, and other expenses, for the fiscal year ending June 30, 1890.

ARTICLES.	Value.
Flour.....	\$8,838 65
Meat.....	25,772 66
Sugar.....	3,623 09
Tea.....	1,223 87
Syrup.....	1,205 31
Potatoes.....	2,572 00
Butter.....	6,966 59
Coffee and chicory.....	3,483 30
Lard.....	113 40
Fish.....	643 98
Poultry and eggs.....	3,972 35
Beans.....	791 92
Rice and cracked wheat.....	1,267 40
Cornmeal and oatmeal.....	986 77
Fruit.....	429 24
Salt.....	153 47
Vinegar and pickles.....	213 56
Small groceries.....	1,033 07
Soap.....	1,202 54
Drugs.....	1,474 97
Liquor and ale.....	361 12
Tobacco.....	1,037 07
Dry goods.....	3,887 77
Clothing and hats.....	3,907 59
Shoes and leather.....	1,892 72
Blankets.....	1,454 00
Furniture and crockery.....	832 98
Hardware and tinware.....	926 00
Spoons and cutlery.....	117 30
Carpeting.....	462 95
Grain and feed.....	1,154 64
Garden tools and seed.....	267 94
Lumber.....	1,344 63
Repairs.....	902 81
Brooms and brushes.....	529 60
Books and stationery.....	83 25
Gas.....	2,358 87
Paints, oil, and glass.....	899 36
Fuel.....	15,332 87
Bedding.....	473 05
Castings, pipe, and iron.....	844 15
Payroll.....	85,491 55
Returned escapes.....	34 00
Discharged patients.....	417 40
Trustees' services and mileage.....	687 50
Telegraphing and telephoning.....	110 79
Postage, freight, and expressage.....	375 61
Ice.....	49 32
Advertising.....	275 00
Straw.....	287 95
Wagon.....	112 50
Hose cart and hose.....	390 00
Hereford bull.....	100 00
Repairing boilers, tanks, etc.....	903 72
Gas retorts, brick, clay, etc.....	587 55
Miscellaneous.....	1,450 38
Total.....	\$196,312 08

TABLE SECOND.

Showing the cost of the different departments for the fiscal year ending June 30, 1890.

DEPARTMENTS.	Cost.
Kitchen and dining-rooms	\$53,944 69
Wards	14,800 04
Bakery	9,063 54
Laundry	670 57
Engine-room	256 89
Farm, garden, dairy, and stable	1,960 86
Trustees' salaries and mileage	687 50
Repairs	5,920 38
Drug store	1,574 75
Center building	923 95
Office	610 82
Payroll	85,491 55
Returned escapes	34 00
Discharged patients	417 40
Fuel	15,228 44
Gas	2,358 87
Coombs ranch	215 05
Tin shop	300 69
Blacksmith shop	331 86
Night watch	45 08
Advertising	275 00
Miscellaneous	1,195 15
Total	\$196,312 08

TABLE THIRD.

Averages for the fiscal year ending June 30, 1890.

MONTHS.	Average Number of Patients Daily	Average Daily Expenses	Average Cost per Capita per Day	Average Cost per Capita per Month
1889—July	1,350	\$522 95	\$0 38 $\frac{7}{10}$	\$12 00
August	1,353	495 84	36 $\frac{5}{10}$	11 34
September	1,354	523 76	38 $\frac{1}{10}$	11 61
October	1,348	511 46	37 $\frac{3}{10}$	11 75
November	1,336	557 89	41 $\frac{1}{10}$	12 57
December	1,334	546 04	40 $\frac{3}{10}$	12 68
1890—January	1,329	554 33	41 $\frac{3}{10}$	12 95
February	1,330	583 39	43 $\frac{3}{10}$	12 18
March	1,335	535 98	40 $\frac{2}{10}$	12 46
April	1,335	542 18	40 $\frac{3}{10}$	12 10
May	1,339	520 96	38 $\frac{3}{10}$	12 06
June	1,344	562 72	41 $\frac{1}{10}$	12 33
Yearly averages	1,341	\$538 12	\$0 40	\$12 17

TABLE FOURTH.

Products of the farm, garden, and dairy for the fiscal year ending June 30, 1890.

ARTICLES.	Amount.
Asparagus, pounds.....	283
Apples, pounds.....	34,000
Apricots, pounds.....	500
Blackberries, pounds.....	783
Beets (table), pounds.....	311
Beets (cow), pounds.....	50,255
Beans, pounds.....	1,107
Cabbage, pounds.....	46,191
Cauliflower, pounds.....	587
Carrots, pounds.....	10,646
Cherries, pounds.....	2,870
Currants, pounds.....	320
Corn (green), dozen.....	165
Cucumbers, dozen.....	384
Celery, pounds.....	2,592
Chickens, dozen.....	13
Ducks, number.....	5
Eggs, dozen.....	832
Figs, pounds.....	160
Grapes, pounds.....	60,000
Gooseberries, pounds.....	40
Corn fodder, pounds.....	72,000
Hay, tons.....	128
Lettuce, pounds.....	3,328
Milk, gallons.....	24,081
Melons.....	720
Nectarines, pounds.....	400
Onions, pounds.....	34,465
Parsley, pounds.....	93
Potatoes (sweet), pounds.....	488
Peppers, pounds.....	416
Pease, pounds.....	356
Plums, pounds.....	3,000
Peaches, pounds.....	2,800
Pears, pounds.....	2,000
Prunes, pounds.....	40
Quinces, pounds.....	100
Radishes, pounds.....	2,565
Rhubarb, pounds.....	400
Raspberries, pounds.....	179
Squash, pounds.....	4,976
Strawberries, pounds.....	26
Tomatoes, pounds.....	19,229
Turnips, pounds.....	11,913
Cows and calves sold.....	\$210 00
Pork sold.....	\$1,651 20
Pork consumed, pounds.....	1,110
Calves consumed, number.....	1

METEOROLOGICAL TABLE.

The following Table shows the Average Mean, Maximum, and Minimum; also, Highest and Lowest Temperature per Month, per Year, and from November 7, 1876, to June 30, 1890; also, Rainfall for same period. Observations taken three times daily, by W. H. Martin, Pharmacist.

YEARS.	JULY.						AUGUST.						SEPTEMBER.					
	Average Mean....	Highest	Lowest	Average Maximum	Average Minimum	Rainfall for Month	Average Mean....	Highest	Lowest	Average Maximum	Average Minimum	Rainfall for Month	Average Mean....	Highest	Lowest	Average Maximum	Average Minimum	Rainfall for Month
1876-7	67.9	92	51	80.3	55.5	.11	64.2	84	48	76.2	52.2		65.5	92	44	79.0	52.0	
1877-8	64.5	89	48	77.0	52.0		64.5	86	48	75.8	53.2	.01	61.6	90	42	74.3	48.9	1.49
1878-9	64.0	82	48	75.1	52.9		64.9	96	48	77.0	52.8		63.3	86	47	77.0	49.7	
1879-80	63.4	87	48	74.2	52.6		62.2	84	45	74.3	50.2		61.5	85	43	74.4	48.6	
1880-1	65.9	89	44	78.4	53.5		63.0	83	47	75.4	50.6		61.6	88	44	74.2	49.1	.26
1881-2	63.8	86	47	75.3	52.3		62.4	82	46	73.7	51.1		63.7	85	42	73.5	54.0	.48
1882-3	63.4	96	48	74.7	52.1		63.4	89	42	76.2	50.6		64.2	93	47	76.1	52.3	1.10
1883-4	63.0	88	48	80.1	51.9		62.8	84	48	76.2	49.4		58.0	79	40	70.3	45.7	.07
1884-5	64.2	86	52	73.3	55.1		61.9	91	49	70.2	53.6		62.8	85	48	72.8	52.9	.07
1885-6	66.0	88	48	76.9	55.1		65.6	87	50	77.2	54.0		62.0	88	43	73.0	51.0	
1886-7	61.0	82	44	71.5	50.5	.03	60.6	84	45	70.4	50.8		62.4	86	44	73.7	51.1	.22
1887-8	65.1	91	46	76.1	54.1		65.9	90	51	77.3	54.5		65.1	90	49	75.6	54.6	1.08
1888-9	63.0	89	50	73.7	52.3		63.3	86	46	75.4	51.2		64.1	90	45	76.4	52.4	
1889-90																		
Averages	64.4			75.8	53.0	.01	63.4			75.0	51.8		62.8			74.6	51.0	.37

METEOROLOGICAL TABLE—Continued.

YEARS.	JANUARY.						FEBRUARY.						MARCH.					
	Average Mean.....	Highest	Lowest	Average Maximum	Average Minimum	Rainfall for Month	Average Mean	Highest	Lowest	Average Maximum	Average Minimum	Rainfall for Month	Average Mean	Highest	Lowest	Average Maximum	Average Minimum	Rainfall for Month
1876-7	49.7	65	30	57.5	41.9	6.80	51.9	68	36	61.5	42.3	1.31	55.7	74	38	65.3	46.1	.91
1877-8	48.1	60	27	54.6	41.6	15.31	48.7	58	38	55.1	42.3	13.82	53.2	68	38	61.1	45.3	4.97
1878-9	43.2	62	29	51.9	34.5	5.10	50.9	67	34	59.0	42.8	5.77	54.0	75	36	61.4	46.6	9.40
1879-80	42.0	60	27	50.2	33.8	3.64	46.0	62	29	53.8	38.2	2.19	47.8	66	29	57.2	38.5	2.61
1880-1	49.4	63	32	54.7	43.4	12.72	52.8	64	36	58.2	47.5	3.15	51.4	71	30	60.6	42.3	1.35
1881-2	49.4	69	28	50.6	35.4	3.22	43.2	57	30	50.8	35.6	3.65	49.0	78	32	58.0	40.0	3.60
1882-3	34.7	57	24	47.1	32.3	.92	42.8	68	26	50.6	35.0	1.00	50.9	69	36	58.4	43.4	5.53
1883-4	43.2	58	30	54.0	32.4	3.67	51.8	70	31	62.3	41.4	5.22	50.0	72	34	58.2	41.8	7.12
1884-5	43.4	56	34	49.2	37.7	1.77	50.6	64	33	57.8	43.4	.61	54.0	74	40	62.4	45.6	.49
1885-6	44.7	58	29	49.6	33.8	7.83	51.1	65	30	59.1	43.1	.25	48.8	70	32	57.8	39.8	1.22
1886-7	45.1	66	30	53.0	37.2	1.70	41.1	60	30	48.0	34.2	10.62	51.9	73	32	61.2	42.7	.48
1887-8	41.5	57	23	46.5	36.5	4.15	48.9	73	34	56.6	41.3	1.28	49.5	70	33	57.6	41.4	4.34
1888-9	41.6	56	30	48.9	34.3	1.02	46.4	66	27	55.3	37.5	.76	53.1	74	38	60.8	45.5	8.38
1889-90	39.4	53	26	44.8	34.0	9.40	43.8	60	30	50.8	36.8	6.36	48.9	64	32	55.4	42.4	5.46
Averages	43.8			50.9	36.7	5.52	47.8			55.6	40.1	3.99	51.3			59.7	42.9	3.99

BIENNIAL REPORT OF THE DIRECTORS

AND THE

THIRTY-SEVENTH AND THIRTY-EIGHTH ANNUAL REPORTS

OF THE

SUPERINTENDENT

OF THE

INSANE ASYLUM OF THE STATE OF CALIFORNIA
(AT STOCKTON).

FOR THE TWO YEARS ENDING JUNE 30, 1890.



SACRAMENTO:

STATE OFFICE, : : : : : J. D. YOUNG, SUPT. STATE PRINTING.
1890.



BOARD OF DIRECTORS.

OCTOBER, 1890.

HON. ROBERT WATT, <i>President</i>	Oakland.
Appointed by Governor Irwin, 1876; reappointed by Governor Perkins, 1880; reappointed by Governor Stoneman, 1884; reappointed by Governor Waterman, 1888.	
H. T. DORRANCE, <i>Vice-President</i>	Stockton.
Appointed by Governor Waterman, 1888.	
OBED HARVEY, M.D.	Galt.
Appointed by Governor Waterman, 1888.	
CAPT. R. S. JOHNSON	Stockton.
Appointed by Governor Waterman, 1889.	
ARTHUR THORNTON	New Hope.
Appointed by Governor Waterman, 1888.	

MEDICAL OFFICERS.

HIRAM N. RUCKER, M.D.	Medical Superintendent.
JUNIUS D. YOUNG, M.D.	First Assistant Physician.
THOMAS PHILLIPS, M.D.	Second Assistant Physician.
A. W. HOISHOLT, M.D.	Third Assistant Physician.

N. M. ORR	Treasurer and Secretary of Board.
H. W. TAYLOR	Superintendent's Secretary.
T. J. KEYS	Steward.
W. H. CHESTNUTWOOD	Supervisor.
MRS. M. E. RAMSELL	Matron.



DIRECTORS' REPORT.

To his Excellency R. W. WATERMAN, Governor of the State of California:

In accordance with the law controlling the management of the State Insane Asylum, we, as Directors, submit our biennial report for the two years ending June 30, 1890, together with the reports of the Medical Superintendent and Treasurer, which reports are made part hereof.

Since the submission of our last biennial report a complete change has been made in the medical managing officers of the asylum. Dr. W. H. Mays, who for nearly three years had been Medical Superintendent of the institution, and had zealously labored to promote its best interests, was compelled, for private reasons, to submit his resignation to this Board, at its meeting held September 10, 1888, and the same was accepted, to take effect November 1, 1888.

At the same meeting, Dr. W. R. Langdon, who had been long connected with this asylum as Assistant Physician, and who by his skill in his profession, his earnest and conscientious efforts to perform the duties of his position, his kind and humane treatment of the unfortunates under his care, and his courteous and considerate treatment of those associated with him in the conduct and management of the institution, had made himself esteemed and respected by all, also presented his resignation, much to the regret of all those who had known of his painstaking labors to ameliorate the condition of the patients over whom he had supervision and care.

At an adjourned meeting of this Board, held on September 11, 1888, Dr. H. N. Rucker was elected Medical Superintendent to fill the vacancy caused by the resignation of Dr. Mays, and Dr. J. D. Young was elected Assistant Physician, to fill the vacancy caused by the resignation of Dr. Langdon.

On May 10, 1889, in pursuance of an Act of the Legislature, approved March 15, 1889, this Board proceeded to elect an additional Assistant Physician, and this choice fell upon Dr. Thomas Phillips.

Dr. W. A. Washington, an Assistant Physician of this asylum for over three years, died September 4, 1889. He was a highly valued employé of this institution, and possessed in an eminent degree the qualifications of medical skill, humane instincts, pleasing personal address, to make him beloved by the patients under his care, and esteemed and respected by his associates. His death was deeply deplored by all.

At a meeting held September 26, 1889, this Board elected Dr. A. W. Hoisholt to fill the vacancy caused by the death of Dr. Washington.

Notwithstanding the fact of this unusual change in the medical management of the asylum within so short a period, we take pleasure in reporting that the selections to fill these important positions seem to have been well made, and each one has readily adapted himself to the performance of the duties of the position to which he has been elected; and each and all show a commendable ambition to make this asylum worthy of the confidence of the people, and a credit to the State from whose treasury it is supported.

We regret that we are again compelled to report that the appropriations made for the year ending June 30, 1889, and also for the year ending June 30, 1890, were inadequate for the support of this asylum. During the month of November, 1888, two hundred patients were removed from this asylum to that at Agnews. It was expected that this removal would have been effected at a much earlier date, but the delay in completing the work of furnishing accommodations at Agnews, postponed the granting of relief to the over-crowded wards of this institution until that time. By referring to the report of the Medical Superintendent herewith, for the year ending June 30, 1889, it will be seen that, notwithstanding the removal of two hundred patients to Agnews during that year, the total number of patients remaining in this asylum June 30, 1889, was only sixty-six (66) less than were here on June 30, 1888.

The excess of the expenditures for the fiscal year ending June 30, 1889, was \$11,557 32, as shown by bills now on file with the State Board of Examiners, and is to be accounted for, in part, by the large number of patients under care and treatment that year, and, in part, by an effort made to improve the condition of the patients by supplying better food and clothing.

The excess of expenditures over the appropriation for the fiscal year ending June 30, 1890, was \$9,971 99, also shown by bills now on file with the State Board of Examiners. This is to be principally attributed to the severity of the last winter. The grounds of the asylum were at one time overflowed, and basements and cellars filled with water. To keep the various buildings warm required an extraordinary consumption of coal, the cost of which was materially increased by the difficulty of transporting it to the asylum. The water from the basement had eventually to be removed by pumping, and provisions also made for draining the low places in the asylum grounds. The land under cultivation was rendered less productive, thereby seriously affecting an important source of supplies to the institution.

EXPENDITURES FROM CONTINGENT FUND.

As will be seen from the report of the Treasurer, considerable drafts have been made upon the Contingent Fund for extra work and material upon the new buildings lately erected upon the asylum grounds. The alterations have generally been made to conform to new conditions that have arisen since the buildings were first projected, and as none of the alterations have been of sufficient importance to necessitate a change of the original plans—the cost of no single change being \$1,000—the work has been ordered by this Board and the extra expenditures paid from the Contingent Fund, the architect and Superintendent of the buildings in every case fixing the prices to be paid for the several changes.

We have also to report that we have expended \$2,500 from the Contingent Fund in the purchase of three fourths of a block of land, and have had the same deeded to the State. This piece of land was situated near the former boundaries of the asylum grounds, but separated therefrom on two sides by unused streets, which could be closed without detriment to the public interest. The City Council of Stockton, upon a petition from this Board, passed an ordinance closing the said streets and granting the use of the ground to the asylum. By this purchase

and grant, the asylum is much benefited, as the land acquired is near the new building for the Male Department, and has furnished a convenient site for the new engine house and workshops that have been located thereon. The well for gas is also being bored upon the same piece of ground.

THE NORTH-STREET CANAL.

The extraordinary high water of the past winter seriously impeded the contractor in the completion of the North-Street Canal, besides seriously damaging and washing away portions of the levee that had already been completed. Further time had therefore to be granted for the completion of the work.

The pipe line designed for conducting the sewage from the asylum into a tidal basin in the canal, is now being laid, and will soon be completed, thereby removing a great cause for complaint, and improving the sanitary conditions about the asylum. .

EXPENDITURES FROM THE APPROPRIATION FOR ERECTION OF NEW BUILDINGS, AND FOR PERMANENT IMPROVEMENTS, ETC.

By an Act of the Legislature approved March 15, 1889, an appropriation of fifty thousand five hundred dollars (\$50,500) was made for certain specified erections and improvements upon the asylum grounds.

Plans were carefully considered and finally adopted for the different buildings and improvements contemplated, to wit: for the erection of boiler house, engine-room, workshops, morgue, lavatories, ironing-room, associated dining-room, and residences for two Assistant Physicians and Supervisor. The contract for performing the work was duly let after advertising for proposals as required by law.

After the contract was let, however, there were changes in the conditions of affairs at the asylum which necessitated the modification of the plans in some respects, one of the most important of which was that of authorizing the contractor to construct the residence originally designed for the Supervisor upon the same plan that had been adopted for those of the Assistant Physicians. This change was effected because of the fact that the Legislature had provided for the employment of three Assistant Physicians at the asylum, and for the further reason that a residence for the Supervisor was not then demanded.

The total cost of changing this house so as to make it upon the same plan as the others was about \$900.

The cost of making the above mentioned change, as has been heretofore stated, was paid from the Contingent Fund, as was also that of several other changes in the original plans, which, in the judgment of this Board, seemed necessary in order that buildings and improvements should more fully meet the present requirements of this institution.

Although these improvements were not completed as soon as expected, owing to the impossibility of pushing the work during the past winter, at the present writing they are all finished and most are being used for the purposes for which they were designed, and it is confidently expected that soon all will be in use, to the great advantage and benefit of this institution.

APPROPRIATION FOR FURNISHING BOILER HOUSE AND FOR REPAIRING BUILDINGS, ETC.

In the expenditure of this appropriation made by the last Legislature, of \$29,750, plans and specifications for the proposed work were carefully prepared and two contracts let, one for the cement work and the other for plumbing, roofing, water tanks, and general repairs.

The Treasurer's report will show the amount expended from this appropriation up to June 30, 1890, since which time new boilers have been placed in position, and the work contracted for completed. The pipe connections between the new boilers and buildings are being made, and it is expected that they will soon be used for the purpose of heating the buildings, and a considerable saving in the consumption of fuel be thereby made.

We confidently submit these improvements to all interested in the welfare of the asylum, firmly believing that they have been judiciously made and the appropriations economically expended.

APPROPRIATION FOR WATER, LIGHT, AND FUEL.

In order to intelligently and legally expend the appropriation of \$40,000 made by the last Legislature so that, if possible, the results would meet the anticipations of the people, this Board consulted with the Attorney-General of this State, and obtained his opinion as to their powers and duties in the premises.

Being instructed that the matter of the expenditure of this appropriation was left with this Board, the members thereof being expected to use their best judgment as to the action to be taken, it was decided that as the Act of the Legislature expressly provided for boring wells to supply the asylum with water, light, and fuel, two wells should be bored—one for water and one for gas. It is a well known fact that water obtained from a well giving off a considerable quantity of gas is unsuitable for culinary or irrigation purposes, and it was therefore the purpose of this Board to bore one well to a moderate depth for the purpose of obtaining an increased supply of pure water for the grounds, which was much needed, while the well to be bored for gas should be sunk to as great a depth as possible. In June, 1889, the Board advertised for proposals for boring the two wells, as above stated, the bids to be opened at the regular meeting of the Board to be held on July tenth. At that meeting no propositions satisfactory to the Board were received, and an adjournment was then taken to July twenty-fourth, at which time contracts were made for boring each of the two wells. The water well has been completed, a fair flow of water being obtained at the depth of one thousand and seventy feet, which, having been analyzed by experts at the request of this Board, is pronounced to be of a quality suitable for culinary and irrigation purposes.

Unexpectedly, however, in boring this well a moderate flow of gas was obtained, and the same has been utilized by placing a receiver over the well and conducting the gas to the ironing-room of the laundry at the Female Department, where it is very successfully used in heating the irons. Besides the saving in fuel, the advantages derived in using gas for that purpose are particularly satisfactory to the persons there engaged, and as the supply is adequate for the requirements of the room, the

result of the experiment is very gratifying to the management of the asylum.

The amounts expended upon the gas well previous to June 30, 1890, are shown by the Treasurer's report. Since that time considerable progress has been made, and at one time a large flow of water and considerable gas was obtained from the well, but lately the contractor has met with an accident, which has seriously impeded the prosecution of the work, and the final result of his attempts to overcome the obstacles that now retard his progress cannot be foreseen. It may, however, be safely asserted that the probabilities of the existence of gas in such quantity as will justify the sinking of wells to secure its flow, have been strengthened by the efforts already made.

The condition of the various funds of the asylum on June 30, 1890, is shown by the Treasurer's report; but since that time expenditures have been made which have exhausted the appropriation for new buildings and permanent improvements. The appropriation for furnishing the boiler house and for repairs, and the work provided for by that appropriation, has been completed. Expenditures have also been made from the Contingent Fund in furnishing the new residences for the physicians, for which no provision had been made, and for constructing walks and grading streets upon the grounds, which will exhaust that fund when the work already projected and now being carried out is finished. All the work projected is imperatively demanded, in order that the full advantages to the institution anticipated from the erections and improvements already made, can be fully secured.

As will be seen from the report of the Superintendent, the residence so long occupied by persons in charge of this institution, has become so dilapidated as to be unsafe as "residence for the Superintendent and his family," and it has at this time been abandoned. During the last winter the moisture rose in the brick walls of the building for several feet by capillary attraction, thus rendering the rooms damp and unwholesome; and owing to the poor quality of the material of which the building is constructed, and the long period of over thirty years since it has been built, it is the judgment of this Board that it will not be in the interest of economy to repair this residence, and that provision should be made for the immediate erection of a new one more appropriate to the times and better adapted to the use of the Superintendent and family. The floor in the main halls and corridors of the building of the Female Department has become badly worn, and should be replaced.

The machinery in use in the laundry of the Male Department is so worn that it will also have to be replaced.

In order to make these necessary improvements, to wit: to erect a new residence for the Superintendent, to place new floors in the Female Department building, and the new machinery in the laundry, will, in our estimation, require an appropriation of at least \$45,000.

The expenses for supporting patients in this asylum for the year ending June 30, 1889, was $38\frac{6}{10}$ cents per capita; for the year ending June 30, 1890, $38\frac{3}{10}$ per capita. At the present time we have in this institution one thousand five hundred and eighty-five patients, and we expect that the average number for the next two years will be at least one thousand six hundred. In order to give that number proper care and such supplies as will render them such comforts as the State should

give its unfortunate wards, we think the appropriation for support for the next two years should be at least \$450,000.

Commending this important charity to your favorable consideration, we remain,

Very respectfully yours,

ROBERT WATT,
H. T. DORRANCE,
OBED HARVEY,
R. S. JOHNSON,
ARTHUR THORNTON,
Directors.

Stockton, October 10, 1889.

TREASURER'S REPORT.

OFFICE OF THE SECRETARY OF BOARD OF DIRECTORS, AND)
 TREASURER STATE INSANE ASYLUM, }
 STOCKTON, CAL., July 31, 1890. }

To the Board of Directors of the State Insane Asylum:

GENTLEMEN: In accordance with the by-laws of this institution, I have the honor to present the following biennial report of the receipts and expenditures of the State Insane Asylum at Stockton for the two years ending June 30, 1890:

GENERAL FUND.

RECEIPTS.

1888—June 30—Balance as per last biennial report.....	\$7,043 29
July 24—Received from the State.....	16,988 66
Sept. 15—Received from the State.....	36,599 19
Oct. 5—Received from the State.....	3,749 64
Nov. 11—Received from the State.....	18,358 04
Dec. 11—Received from the State.....	21,630 64
1889—Jan. 11—Received from the State.....	21,302 36
Jan. 26—Received from the State.....	19,018 89
Feb. 28—Received from the State.....	20,706 36
Mar. 29—Received from the State.....	17,717 58
May 7—Received from the State.....	19,386 18
May 16—Received from the State.....	23,651 25
June 7—Received from the State.....	18,299 91
July 3—Received from the State.....	17,071 41
July 31—Received from the State.....	4,904 44
Oct. 11—Received from the State.....	16,361 99
Oct. 11—Received from the State.....	19,138 84
Nov. 13—Received from the State.....	17,792 84
1890—Jan. 11—Received from the State.....	20,992 32
Jan. 11—Received from the State.....	19,035 89
Jan. 25—Received from the State.....	19,895 55
Feb. 24—Received from the State.....	19,457 93
Mar. 29—Received from the State.....	17,910 68
Apr. 30—Received from the State.....	18,867 85
May 16—Received from the State.....	19,410 84
June 20—Received from the State.....	17,459 46
	<u>\$473,752 03</u>

DISBURSEMENTS.

Amount on order of the Board for maintenance as per vouchers on file for year ending June 30, 1889.....	\$226,245 41
For year ending June 30, 1890.....	223,811 60
Balance in General Fund June 30, 1890.....	23,695 02
	<u>\$473,752 03</u>

CONTINGENT FUND.

RECEIPTS.

June 30, 1888—Balance as per last biennial report.....	\$6,048 02
Received from patients for board, etc., during the year ending June 30, 1889.....	13,966 95
Steward's sales for year ending June 30, 1889.....	2,495 17
Received from patients for board, etc., during the year ending June 30, 1890.....	15,572 95
Steward's sales for year ending June 30, 1890.....	1,394 11
	<u>\$39,477 20</u>

DISBURSEMENTS.

For the year ending June 30, 1889:

Laundry work	\$125 25
Dairy stock and horses	1,076 00
Repairs	867 11
Interest and expressage	1,314 87
Trees and plants	67 53
Expenses physician to Superintendents' Convention	400 00
Advertising and printing	14 00
Boring wells for water supply	523 75
Architect's fees	100 00
Gravel	91 00
Musical instruments, sheet music, and hire of musicians for entertainments	174 21
Laundry machinery	630 85
Mileage of officers of asylum	157 60
Paid for land purchased	2,500 00

\$8,042 17

For the year ending June 30, 1890:

Laundry work	\$151 65
General repairs	1,290 68
Insurance on boilers	55 00
Pasturage	27 85
Interest and expressage	772 10
Mileage	77 90
Advertising and printing	30 50
Civil engineer's fees	137 00
Music, instruments, and hire of musicians	201 72
Dairy stock and horses	307 00
Repairing stairs	725 00
Sewer pipe and constructing sewers	1,038 43
Watchman's electric clock	591 50
Earth and gravel for grading	552 00
Hose and reels	888 00
Cement	758 50
Extras on new buildings	2,632 00
Laundry machinery	831 25
Physician's expenses to Superintendents Convention	400 00
Architect's fees	20 00
Trees and plants	104 87
Attorney's fees	15 00
Analysis of artesian water	50 00

11,652 95

Balance June 30, 1890 19,782 08

\$39,477 20

APPROPRIATION FOR NORTH-STREET CANAL.

RECEIPTS.

1888—Feb. 28—Received from the State	\$85 00
July 30—Received from the State	116 30
Sept. 15—Received from the State	50 00
Sept. 15—Received from the State	79 25
Nov. 1—Received from the State	4,020 00
Dec. 3—Received from the State	3,165 00
1889—Jan. 1—Received from the State	315 00
May 3—Received from the State	3,256 20
June 14—Received from the State	2,295 00
July 5—Received from the State	1,230 01
Aug. 1—Received from the State	840 00
Aug. 23—Received from the State	600 01
Nov. 11—Received from the State	1,806 30
Dec. 11—Received from the State	1,737 61
Dec. 13—Received from the State	720 00
1890—Jan. 27—Received from the State	639 00
May 15—Received from the State	1,800 00

\$22,754 68

DISBURSEMENTS.

Paid sundry bills for advertising, etc., as per vouchers on file	\$330 55
Paid contractor	22,424 13

\$22,754 68

APPROPRIATION FOR NEW BUILDINGS.

RECEIPTS.

1889—Sept. 26—Received from the State	\$2,736 00
Nov. 5—Received from the State	5,224 50
Nov. 13—Received from the State	1,404 00
Nov. 13—Received from the State	280 00
Dec. 11—Received from the State	1,500 00
Dec. 11—Received from the State	150 00
Dec. 11—Received from the State	6,961 50
1890—Jan. 7—Received from the State	150 00
Jan. 10—Received from the State	3,132 90
Jan. 28—Received from the State	150 00
Mar. 1—Received from the State	150 00
Mar. 11—Received from the State	2,289 60
Mar. 29—Received from the State	2,844 36
Mar. 29—Received from the State	150 00
Apr. 27—Received from the State	4,832 10
May 2—Received from the State	150 00
May 17—Received from the State	4,794 30
May 17—Received from the State	150 00
June 26—Received from the State	150 00
	<u>\$37,199 26</u>

DISBURSEMENTS.

Paid for cement	\$1,404 00
Architect's fees	1,500 00
Salary of Superintendent of Construction	1,480 00
Paid contractor, Contract No. 2	32,815 26
	<u>\$37,199 26</u>

APPROPRIATION FOR FURNISHING BOILER HOUSE, ETC.

RECEIPTS.

1889—Sept. 30—Received from the State	\$702 00
Sept. 30—Received from the State	36 00
Sept. 30—Received from the State	15 00
Sept. 30—Received from the State	97 28
Nov. 6—Received from the State	3,078 00
Nov. 13—Received from the State	2,052 00
Dec. 11—Received from the State	3,744 00
Dec. 11—Received from the State	1,561 50
1890—Jan. 12—Received from the State	1,044 00
Jan. 23—Received from the State	1,377 00
Mar. 29—Received from the State	1,614 60
May 2—Received from the State	3,735 00
May 5—Received from the State	540 00
	<u>\$19,596 38</u>

DISBURSEMENTS.

Paid for cement	\$4,446 00
Paid for advertising	148 28
Paid on Contract No. 1	6,223 50
Paid on Contract No. 3	8,778 60
	<u>\$19,596 38</u>

APPROPRIATION FOR WATER, LIGHT, AND FUEL.

RECEIPTS.

1889—Aug. 27—Received from the State	\$203 00
Nov. 4—Received from the State	1,192 50
Dec. 12—Received from the State	1,516 50
1890—Jan. 28—Received from the State	1,775 25
Mar. 10—Received from the State	589 50
Mar. 29—Received from the State	1,038 85
May 11—Received from the State	1,801 50
	<u>\$8,117 10</u>

REPORT OF THE DIRECTORS OF THE

DISBURSEMENTS.

Paid for advertising	\$203 00	
Paid for boxing water well	2,814 10	
Paid for boxing well for gas	5,100 00	
		<u>\$8,117 10</u>

All of which is respectfully submitted.

N. M. ORR,
Treasurer.

SUPERINTENDENT'S REPORT.

YEAR ENDING JUNE 30, 1889.

To the Directors of the Stockton State Insane Asylum:

GENTLEMEN: I submit herewith my annual report for the year ending June 30, 1889. Another report will be required of the Superintendent before the time of making the usual biennial report to the Governor, and I shall offer no extended observations at this time.

For the past year the daily per capita cost of maintaining the patients has been 38.6 cents. This includes the entire expense for food, clothing, care, and medical attendance.

Respectfully submitted.

H. N. RUCKER,
Medical Superintendent.

STATISTICAL TABLES, 1889.

MOVEMENT OF PATIENTS.

	Males.	Females.	Total.
Number of patients July 1, 1888.....	1,190	456	1,646
Admitted during year.....	393	136	529
Whole number under treatment.....	1,583	592	2,175
Discharged recovered.....	147	44	191
Discharged improved.....	32	12	44
Discharged unimproved*.....	155	60	215
Discharged not insane.....	1	2	3
Died.....	100	34	134
Escaped.....	8		8
Total discharged, died, and escaped.....	443	152	595
Number remaining June 30, 1889.....	1,140	440	1,580

* Of those discharged as unimproved, one hundred and forty males and sixty females were transferred to the State Insane Asylum at Agnews, November 26, 1888.

TABLE A.

Counties from which Patients were Admitted.

COUNTIES.	Males.	Females.	Total.
Alameda	41	21	62
Amador	2	1	3
Butte	7	1	8
Calaveras	1	1	2
Contra Costa	6	1	7
El Dorado	5	1	6
Fresno	14	1	15
Inyo	2	—	2
Kern	10	4	14
Lassen	1	1	2
Los Angeles	40	18	58
Marin	4	2	6
Mariposa	3	—	3
Mendocino	5	—	5
Merced	4	2	6
Modoc	1	—	1
Monterey	6	3	9
Nevada	9	3	12
Placer	1	—	1
Sacramento	8	5	13
San Benito	2	—	2
San Bernardino	11	3	14
San Diego	11	1	12
San Francisco	117	49	166
San Joaquin	35	5	40
Santa Clara	11	1	12
Shasta	1	—	1
Sierra	4	—	4
Siskiyou	2	1	3
Stanislaus	8	3	11
Tehama	1	—	1
Tulare	8	6	14
Tuolumne	3	1	4
Yuba	5	1	6
State Prison—Folsom	3	—	3
State Prison—San Quentin	1	—	1
Totals	393	136	529

TABLE B.

Nativity of those Admitted.

NATIVITY.	Males.	Females.	Total.
<i>United States.</i>			
Arkansas	2	1	3
California	27	17	44
Connecticut	1	—	1
District of Columbia	4	1	5
Georgia	4	—	4
Illinois	10	4	14
Indiana	3	2	5
Iowa	1	1	2
Kansas	1	—	1
Kentucky	4	—	4
Louisiana	—	1	1
Maine	7	4	11
Maryland	1	—	1
Massachusetts	16	2	18
Michigan	1	1	2
Missouri	7	7	14
Montana	—	1	1
New Hampshire	1	1	2

TABLE B—Continued.

NATIVITY.	Males.	Females.	Total.
New Jersey.....	1	1	2
New York.....	25	7	32
North Carolina.....	1	—	1
Ohio.....	5	8	13
On Lake Erie.....	1	—	1
Pennsylvania.....	8	4	12
Tennessee.....	1	—	1
Texas.....	1	—	1
Utah.....	2	—	2
Virginia.....	2	2	4
West Virginia.....	1	—	1
Wisconsin.....	6	1	7
United States.....	23	6	29
Totals.....	165	72	237
<i>Foreign Countries.</i>			
Alsace.....	2	—	2
Austria.....	8	1	9
Azores.....	1	—	1
Belgium.....	1	—	1
Bravos Islands.....	1	—	1
Canada.....	10	1	11
China.....	32	1	33
Denmark.....	5	—	5
England.....	19	4	23
Finland.....	2	—	2
France.....	10	1	11
Germany.....	34	14	48
Hanover.....	1	—	1
Hungary.....	2	—	2
Ireland.....	34	23	57
Island of Flores.....	1	—	1
Isle of Man.....	1	—	1
Italy.....	4	2	6
Japan.....	2	—	2
Manilla.....	1	—	1
Mexico.....	6	1	7
Norway.....	4	—	4
Nova Scotia.....	1	—	1
On sea.....	1	—	1
Poland.....	—	1	1
Portugal.....	2	1	3
Prussia.....	2	—	2
Russia.....	2	—	2
Scotland.....	8	—	8
Slavonia.....	1	—	1
Sweden.....	14	6	20
Switzerland.....	4	3	7
Turkey.....	1	—	1
Unknown.....	11	5	16
Totals.....	228	64	292

RECAPITULATION.

NATIVITY.	Males.	Females.	Total.
United States.....	165	72	237
Foreign countries.....	217	59	276
Unknown.....	11	5	16
Totals.....	393	136	529

TABLE C.

Age when Insanity First Appeared.

AGES.	Males.	Females.	Total.
Under 10 years	3	5	8
Between 10 and 15 years	4	1	5
Between 15 and 20 years	23	8	31
Between 20 and 25 years	52	20	72
Between 25 and 30 years	58	16	74
Between 30 and 35 years	59	16	75
Between 35 and 40 years	46	17	63
Between 40 and 45 years	36	18	54
Between 45 and 50 years	30	12	42
Between 50 and 55 years	22	5	27
Between 55 and 60 years	25	6	31
Between 60 and 65 years	8	5	13
Between 65 and 70 years	6	-	6
Between 70 and 75 years	2	3	5
Between 75 and 80 years	1	1	2
Between 80 and 85 years	2	-	2
Between 85 and 90 years	1	-	1
Unknown	15	3	18
Totals	393	136	529

TABLE D.

Age at Time of Admission.

AGES.	Males.	Females.	Total.
Under 10 years	1	-	1
Between 10 and 15 years	1	4	5
Between 15 and 20 years	13	8	21
Between 20 and 25 years	54	19	73
Between 25 and 30 years	60	16	76
Between 30 and 35 years	59	11	70
Between 35 and 40 years	46	20	66
Between 40 and 45 years	34	19	53
Between 45 and 50 years	32	13	45
Between 50 and 55 years	28	6	34
Between 55 and 60 years	29	7	36
Between 60 and 65 years	6	6	12
Between 65 and 70 years	7	-	7
Between 70 and 75 years	3	2	5
Between 75 and 80 years	2	2	4
Between 80 and 85 years	2	-	2
Between 85 and 90 years	1	-	1
Unknown	15	3	18
Totals	393	136	529

TABLE E.

Cause of Insanity as stated in Commitments.

CAUSE.	Males.	Females.	Total.
Intemperance	38	5	43
Heredity	11	9	20
Epilepsy	16	5	21
Masturbation	44	1	45
Religion	14	6	20
Family troubles	3	4	7
Business and money troubles	16	1	17
Injury to head	10	1	11
Cerebral disease	8	2	10
Meningitis		1	1
Opium or morphine habit	11	6	17
Senility	1	1	2
Irregular life and exposure	4	1	5
Despondency—homesickness	2		2
Overwork	4	1	5
Love affairs	2	1	3
Sexual excesses	1		1
Nervous debility	1	2	3
Menstrual derangement		3	3
Puerperal state		1	1
Change of life		2	2
Uterine troubles		1	1
Syphilis	5		5
Solitude	2		2
Ill health	1	3	4
Paralysis	1		1
Death of relative	3	5	8
Hereditary tendency and religion	6	2	8
Sunstroke and overheating	4		4
Gunshot wound	1		1
Spiritualism	1	1	2
Use of tobacco	1		1
Reading trashy novels	1		1
Operation of stone	1		1
Measles		1	1
Loss of property	2		2
Childbirth		3	3
Menopause		2	2
Congenital	1	1	2
Old age		2	2
Typhoid fever		1	1
Chronic disorder of stomach	1		1
Dyspepsia	1		1
Inhaling gas	1		1
Individual habits	1		1
Mining, etc.	1		1
Disappointed ambition	1		1
Criminal abortion		1	1
Secret vice	1		1
Unknown	170	60	230
Totals	393	136	529

TABLE F.
Classification.

CLASS.	Males.	Females.	Total.
Mania	7	2	9
Acute mania	103	33	136
Chronic mania	42	18	60
Recurrent mania	23	4	27
Sub-acute mania	3		3
Puerperal mania		2	2
Monomania	9	2	11
Chronic monomania	1		1
Melancholia	3	3	6
Acute melancholia	25	17	42
Chronic melancholia	16	6	22
Recurrent melancholia	4		4
Puerperal melancholia		2	2
Dementia	9	2	11
Primary dementia	6	2	8
Secondary dementia	8	1	9
Acute dementia	12		12
Chronic dementia	25	5	30
Senile dementia	4	5	9
Partial dementia	23	7	30
Epilepsy	17	8	25
General paresis	4		4
Hypochondriasis	3		3
Moral insanity	8	2	10
Delusion insanity	2	1	3
Toxic insanity	8	1	9
Traumatic insanity	2		2
Syphilitic insanity	1		1
Hysterical insanity		1	1
Morphine habit	1	1	2
Alcoholism	13	4	17
Mania a potu	3	1	4
Idiocy	1	2	3
Not insane	7	4	11
Totals	393	136	529

TABLE G.
Civil Condition.

CIVIL CONDITION.	Males.	Females.	Total.
Married	89	59	148
Single	243	44	287
Widows		27	27
Widowers	12		12
Divorced	1	3	4
Unknown	48	3	51
Totals	393	136	529

TABLE H.

Occupations.

OCCUPATIONS.	Males.	Females.	Total.
Actors	2		2
Bakers	3		3
Barbers	3		3
Blacksmiths	4		4
Bookkeepers	2		2
Bookseller	1		1
Boxmaker	1		1
Brewers	2		2
Butchers	2		2
Cabinetmaker	1		1
Carpenters	7		7
Chairmaker	1		1
Cigarmaker	1		1
Civil engineer	1		1
Clerks	5		5
Commercial traveler	1		1
Compositor	1		1
Contractor	1		1
Convicts	4		4
Cooks	14	1	15
Dentists	3		3
Domestics	1	11	12
Dressmakers		3	3
Drivers	2		2
Druggist	1		1
Employment office		1	1
Ex-convicts	2		2
Farmers	27		27
Farmer's daughter		1	1
Feed and stablemen	2		2
Fishermen	2		2
Gardeners	6		6
Glove cutter	1		1
Goat raiser	1		1
Grocers	1		1
Hack drivers	2		2
Hair dresser		1	1
Hardware	1		1
Harnessmakers	2		2
Hatters	1		1
Housekeepers		16	16
Housewives		48	48
Insurance agents	2		2
Janitor	1		1
Laborers	112		112
Laborer's wife		1	1
Landlady		1	1
Lather	1		1
Laundryman	1		1
Lawyers	2		2
Lodginghouse keeper	1		1
Longshoreman	1		1
Mason	1		1
Mechanics	7		7
Merchants	6		6
Millers	2		2
Milliners		1	1
Miners	17		17
Ministers	1		1
Molders	1		1
Musician	1		1
Music teacher	1		1
Newspaper reporter	1		1
Nurseryman	1		1
Painters	6		6
Paperhanger	1		1
Patternmaker	1		1
Peddlers	1		1

TABLE H--Continued.

OCCUPATION.	Males.	Females.	Total.
Physicians	2	-----	2
Plasterers	1	-----	1
Printers	2	-----	2
Prostitutes	-----	2	2
Railroaders	2	-----	2
Real estate dealers	4	-----	4
Religieuse	-----	1	1
Residing with parents	-----	1	1
Sailmaker	1	-----	1
Sailors	10	-----	10
Salesmen	2	-----	2
Saloonkeeper	-----	1	1
School boy	1	-----	1
School girl	-----	1	1
Seamstresses	-----	4.	4
Shaper hand	1	-----	1
Sheepherders	5	-----	5
Ship Chandler	1	-----	1
Shoemakers	5	-----	5
Spinster	-----	1	1
Stationery and tobacco dealer	1	-----	1
Stock raiser	1	-----	1
Students	2	-----	2
Tailor	1	-----	1
Teacher	-----	1	1
Teamsters	4	-----	4
Tinsmith	1	-----	1
Tramp	1	-----	1
Trapper and hunter	1	-----	1
Waiters	5	-----	5
Watchman	1	-----	1
Weaver	1	-----	1
Winemaker	1	-----	1
Woodchoppers	2	-----	2
Wood dealer	1	-----	1
No occupation	7	9	16
Unknown	45	30	75
Totals	393	136	529

TABLE I.
Cause of Death.

CAUSE.	Males.	Females.	Total.
Consumption	21	2	23
Exhaustion from acute mania	10	6	16
Marasmus	11	2	13
Paralysis	8	5	13
Senile decay	8	4	12
Apoplexy	4	1	5
Maniacal exhaustion	2	3	5
Epilepsy	4	—	4
Pneumonia	3	—	3
Diarrhœa	3	—	3
Exhaustion from chronic brain disease	1	2	3
Typhoid fever	2	1	3
Suicide	2	1	3
Valvular disease of heart	2	—	2
General debility	1	1	2
Paralysis and general debility	1	1	2
Acute mania	1	—	1
Heart disease	1	—	1
Chronic dementia and old age	1	—	1
Exhaustion from melancholia	1	—	1
Exhaustion from chronic mania	1	—	1
Gastric catarrh	1	—	1
Inanition	1	—	1
Dropsy	1	—	1
Debility	1	—	1
Collapse from acute mania	1	—	1
Paralysis and general decay	1	—	1
General paresis	1	—	1
Intestinal obstruction	1	—	1
Purpura hemorrhagica and exhaustion	1	—	1
Chronic bronchitis from inhaling gas	1	—	1
Asthma	1	—	1
Passive hemorrhage of the stomach	1	—	1
Bright's disease	—	1	1
Organic disease of brain	—	1	1
Hemorrhage of lungs	—	1	1
Rapid consumption	—	1	1
General prostration	—	1	1
Totals	100	34	134

ACCOUNT OF ARTICLES CONSUMED AND ANNUAL EXPENDITURES AT
THE ASYLUM.

ARTICLES.	Value.
Flour	\$10,918 12
Meat	23,465 60
Sugar	3,767 55
Tea	878 75
Syrup	1,439 71
Potatoes	2,815 40
Butter	9,123 85
Coffee	3,312 07
Fish	1,048 35
Eggs	568 86
Beans and pease	962 57
Rice and cracked wheat	1,573 87
Cornmeal	458 92
Fruit	967 49
Vegetables	379 71
Salt	167 46
Vinegar	119 06
Small groceries	1,380 72
Soap, starch, and potash	1,468 01
Drugs and medicines	2,049 19
Liquors	514 40
Tobacco	1,222 30
Dry goods	2,378 50
Clothing and hats	6,814 45
Shoes and leather	2,604 18
Blankets	2,758 55
Furniture and crockeryware	2,258 80
Hardware and tinware	1,298 43
Bedding	2,085 58
Brooms and brushes	476 09
Hay, grain, and feed	3,551 51
Garden seeds and tools	369 09
Lumber	812 81
Repairs and improvements	2,617 43
Paints, oils, and glass	1,435 60
Books and stationery	674 10
Gas and oil	2,202 71
Fuel	22,151 49
Castings, pipes, and iron	2,583 32
Advertising for supplies	300 00
Services of Directors and Secretary	1,796 40
Discharged patients	502 75
Returned escapes	236 65
Payroll and wages	94,385 16
Miscellaneous	1,850 20
Total	\$224,745 76

COST OF THE DIFFERENT DEPARTMENTS.

DEPARTMENTS.	1888-1889. Cost.
Male kitchen and dining-room.....	\$40,363 67
Male department.....	67,588 86
Female kitchen and dining-room.....	19,190 94
Female department.....	38,284 94
Bakery.....	11,985 10
Engine houses and laundries.....	9,070 16
Farm, garden, and dairy.....	8,715 36
Repairs and improvements.....	4,865 64
General mechanic's shop.....	1,021 87
Drug store.....	2,674 87
Office.....	638 18
Advertising for supplies.....	300 00
Services of Directors and Secretary.....	1,796 40
Medical Superintendent.....	5,077 93
Assistant Physician.....	4,300 00
Assistant Physician.....	4,300 00
Assistant Physician.....	537 51
Miscellaneous.....	4,034 33
Total.....	\$224,745 76

AVERAGES.

MONTHS.	Average No. of Patients Daily.	Average Daily Expenses.	Average Cost per Capita per Day—Cents.	Average Cost per Capita per Month.
1888—July.....	1,654	\$558 81	33.8	\$10 47
August.....	1,674	589 65	35.2	10 92
September.....	1,675	611 15	36.5	10 94
October.....	1,694	671 25	39.6	12 28
November.....	1,660	702 69	42.3	12 70
December.....	1,503	631 05	42.0	13 01
1889—January.....	1,516	663 24	43.7	13 56
February.....	1,529	645 57	42.2	11 82
March.....	1,539	610 25	39.6	12 29
April.....	1,556	597 35	38.4	11 52
May.....	1,561	553 59	35.5	11 00
June.....	1,575	557 01	35.3	10 61
Yearly averages for 1888-89.....	1,595	\$615 74	38.6	\$11 74

REPORT OF THE DIRECTORS OF THE
PRODUCTS OF THE FARM, GARDEN, AND DAIRY.

ARTICLES.	1889. Amount.
Beets, pounds.....	20,355
Tomatoes, pounds.....	32,985
Parsnips, turnips, and carrots, pounds.....	58,965
Pease and string beans, pounds.....	6,160
Pumpkins and squash, pounds.....	33,595
Egg plant and radish, pounds.....	3,815
Green corn and cucumbers, dozens.....	2,754
Celery, dozens.....	93
Cabbage, pounds.....	10,535
Onions, pounds.....	23,382
Lettuce, dozens.....	737
Pepper and okra, pounds.....	1,551
Watermelons and muskmelons, dozens.....	193
Hay and alfalfa, tons.....	140
Apples, pears, apricots, and peaches, pounds.....	430
Grapes, pounds.....	14,990
Pork, pounds.....	8,580
Beef, pounds.....	2,388
Milk, gallons.....	41,410
Eggs, dozens.....	253
Chickens, number used.....	30

LIVE STOCK SOLD.

STOCK.	Number Sold.	Price.
Hogs and pigs.....	74	\$688 12
Seventeen thousand nine hundred and twenty-five pounds of hogs and pigs, at 5 cents.....		896 25
Horse.....	1	35 25
Calves.....	32	253 85
Totals.....		\$1,873 47

RECEIVED FROM GERLACH & FISK.

For swill six months, at \$32 per month..... \$192 00

LIVE STOCK ON HAND.

STOCK.	1888-1890. Number.
Milch cows.....	62
Yearlings.....	14
Young calves.....	15
Bulls.....	2
Poultry: sixty-five hens and five roosters.....	70

SUPERINTENDENT'S REPORT.

YEAR ENDING JUNE 30, 1890.

To the Directors of the Stockton State Insane Asylum:

I have the honor to present for your consideration the report of the forty-first fiscal year, ending June 30, 1890.

The slight increase in per capita cost of maintenance for the past biennial period has been due, first, to the decrease in population by reason of the transfer of two hundred patients to the Agnews Asylum, and second, to the increased variety in the dietary of the patients, and the better grade of clothing furnished them. At the time the transfer was made, there were seventeen hundred patients in the institution; and while the number was materially changed, a corresponding reduction could not be made in the general expenses of the asylum.

The whole number of patients in the asylum at the beginning of the past fiscal year, July 1, 1889, and the movement of patients during the year, may be learned from the following summary:

MOVEMENT OF PATIENTS.	Males.	Females.	Total.
Number of patients July 1, 1889.....	1,140	440	1,580
Admitted during year.....	242	84	326
Whole number under treatment.....	1,382	524	1,906
Discharged recovered.....	112	22	134
Discharged improved.....	30	15	45
Discharged unimproved.....	11	8	19
Discharged not insane.....	4	—	4
Died.....	91	20	111
Escaped.....	5	—	5
Discharged, died, and escaped.....	253	65	318
Number remaining June 30, 1890.....	1,125	459	1,584

The institution has been remarkably free from epidemic disease. The malady popularly termed "la grippe" has passed us by unharmed.

The percentage of deaths, as compared with last year, has been notably less. Many of the deaths which have occurred have been among the aged and infirm.

The past winter was unprecedented in the annals of the asylum. Almost the entire grounds were inundated, and for a period of about four months the weather continued so damp and cold that scarcely anything could be done in the garden, and the result has been a diminished production of vegetables.

In consequence of the long, wet winter, the item of fuel has been an expensive one, and the same cause has delayed the completion of improvements and repairs for at least four months.

The money appropriated by our last Legislature for improvements and

repairs at the asylum, has been judiciously and economically expended. But unfortunately the amount was inadequate to meet all the requirements.

The item of reflooring the Female Department building was unfortunately overlooked, and was not included when making estimates on the work. It is of the utmost importance that something should be done to meet this necessity. Nearly all the floors in the main halls of the building have hardly been fit for use for the past year. In many places they are entirely worn through, and are becoming dangerous. It is also very necessary that the walks and driveways should be improved. During the past two winters the driveways have been almost impassable, and they sadly need paving.

The old residence, heretofore occupied by the Superintendent, became so damp and rickety that it was considered unsafe longer to live in it. The Superintendent is now domiciled in one of the new residences built for the Assistant Physicians, and one of the physicians remains unprovided for. It will be necessary to build another house before all the physicians can be accommodated on the grounds.

To meet the improvements and repairs mentioned above will require an extra appropriation of fully \$45,000.

I regret to report a deficiency for the past year of \$9,971 99, and with the present number of patients, and the prospective increase, the annual expenses will continue to exceed the present appropriation.

There is little prospect that our population will be diminished for the next two years, but on the contrary we may reasonably expect an increase.

The per capita cost of supporting the patients cannot be lower, without disregarding their comfort and well being. Strict economy has been exercised, but it has been impossible to avoid a deficiency for the past several years. To maintain the large number of patients that must necessarily be cared for in this institution during the next biennial period, will require an appropriation of \$450,000.

The expenditure of the appropriation for improvements and repairs entailed a deal of work and expense that it was impossible to estimate in the beginning, and our laboring force has been very busy. For the same reason, drafts upon the Contingent Fund have been large, and to meet all the requirements, it has been necessary to employ much additional help during most of the time the work was in progress.

After the further contemplated improvements have been made, viz.: the reflooring of the Female Department building, the paving of the drives and walks, and the erection of a residence for the Superintendent, the asylum will be in a very satisfactory condition; and it will be many years before another extra appropriation will be needed.

ESTATES OF INSANE PERSONS.

The attention of the Legislature should be called to the manner in which the small estates of persons who have been committed to the insane asylum are managed. And, in this connection, I wish to say that I intend no reflection upon the guardians of such persons, or upon the Courts. It is the system of administration to which objection is made.

Under the present method of management, a small estate may be,

and often is, kept in Court for an indefinite period—for such a length of time, in fact, that a fourth or a third of it is eaten up by costs, commissions, attorneys' fees, and other expenses. There is an obvious wrong in such a method of administration. If a person is to derive any good from his estate, the benefit should come when he needs it most. A better plan for the management of the estate of insane persons than the one now existing should be provided.

In the great majority of cases, the physicians who have the insane person constantly under their charge, can, within a period of six months, form a reasonably correct judgment as to whether he will recover or not. And if it shall appear that there is no likelihood of his recovery, then the Superintendent of the asylum in which such insane person is an inmate should file a certificate to that effect in the Court out of which letters of guardianship were issued. Then, if the estate be small—say of \$1,000 or less—and does not constitute the means of livelihood of any person whom the insane person would be bound to support, such estate should be converted into money, and the money turned over to the Treasurer of the asylum of which such insane person is an inmate. The Treasurer should be required to place the money at interest in some savings institution, to be drawn upon by the Superintendent for the support and other expenses of the insane person. And any sum thus drawn shall constitute and be treated as a part of the Contingent Fund. By some such provision as this, the State would get all that it has a right to claim, and the welfare of the insane person be kept steadily in view.

There is an important consideration, however, which should not be lost sight of. In seeking to indemnify itself for the cost of maintaining the insane, the State should not take that which is the support of those whom the insane person would be legally or morally bound to cherish, if he were otherwise situated. In other words, when the estate is required for the support of those who would be dependent upon the insane person, if he were sound and well, the State alone should bear the charge of his maintenance.

PUBLIC VISITORS.

It has been the custom for years to exclude male visitors from the wards of the Female Department, except in special instances, and a like rule has lately been adopted in regard to the visits of ladies to the wards of the Male Departments, except on errands of mercy to personal friends; or the visits of relatives, when in the judgment of the physician such visits will not prove detrimental to the patient.

After careful observation, I am of the opinion that the indiscriminate visits of the general public to our asylums is productive of positive mischief, and should be prohibited. The great majority of people who throng our asylums as visitors are mere sightseers or curiosity hunters, and, as a rule, fail to appreciate properly the great aim the State has in view in equipping and supporting these institutions.

There are always a large number of patients confined in our asylums who are keenly alive to the humiliation of being regarded as objects of curiosity and gossip, and some are abnormally sensitive upon this subject. This almost daily embarrassment and disturbance to such patients can but aggravate their symptoms and retard their recovery; for many who are admitted to asylums need no other treatment than absolute

rest, seclusion, and freedom from the harrowing cares and responsibilities of business associations.

The public generally would hardly presume upon invading the wards of a hospital devoted to the treatment of physical ailments, for reasons that seem to be well understood; nor is there any more reason why the public should invade the rights of those who are unfortunately confined in our State hospitals for mental diseases. It is simply a relic of the ignorance, superstition, and barbarity of the not very remote past, which prompts the morbid curiosity of our people, and the practice of unlimited freedom in this particular should be restricted. There is no warrant, either in humanity or expediency, for the indiscriminate and wholesale admission of the curious public to the wards of our asylums, as is the custom at the present day.

The doors of an asylum should ever be open, however, to the conservators of public interests, such as public officials, the press, the clergy, and the medical profession. Relatives of patients are always welcome; for with the proper knowledge of the discipline and order maintained in the wards, the kind and considerate care bestowed upon the patients, and the precautions taken for their safety, will inspire confidence in the management, and an increased respect for the institution.

ASYLUM INTERNES.

I am sure good would result from offering inducements to young physicians to serve as internes in our asylums for a stated period. These should be selected from young unmarried men who have finished the required course in accredited medical schools. They should be elected by the Board of Directors, and furnished with board and lodging on the asylum premises, and a small amount, say of \$20 per month, for clothing and incidentals. The term of such service should be limited to one year, and the number of internes to one in each institution, and upon the expiration of whose term, another should be elected. Each applicant for the position of interne should be required to furnish a satisfactory recommendation from the Dean of the Medical College from which he has graduated, and also certificates of good moral character.

After an interne has served the required time, or has honorably severed his connection with the asylum, he should be entitled to a certificate from the Superintendent, or Chief Medical Officer of the institution, setting forth the length of service, habits of application, efficiency, etc.

From among those who had availed themselves of this special course of study, vacancies in asylum staffs could be filled.

CHANGE OF NAME.

Observation has convinced me that there is much in the name when considering the official title of our institutions for the insane, and I believe the elimination of "lunatic" and "insane" would free these institutions from much of the distressing influences and terrors which attach to them in the weak and timid minds of a large proportion of those who should have, or are receiving, the protection and shelter they afford.

The abuses which were practiced in the past through ignorance and superstition, have left a stigma upon asylums, which abides to this day

with the uninformed and the feeble-minded; and such fail to even faintly appreciate that the word asylum signifies the refuge and protection of a philanthropy both exalted and beneficent. Hence it is that many, through prejudice gained in this way, shrink from custody and treatment in an institution where the very name recalls so many unhappy impressions.

In many of the Eastern States the word "hospital" is very properly taking the place of "asylum," and there is consolation in the association of the word. In the first instance, we have the conception of physical disease in its relation to scientific treatment; in the second instance, there is conjured up in the mind the association of hopeless calamity and a lasting stigma.

Believing that it should ever be the aim of public functionaries studiously to consider the best means of protecting the public weal, I invite your attention to these suggestions, which I trust may meet with your sanction.

A less objectionable title would be, State Hospital for Mental Diseases; or still better, Stockton State Hospital, Napa State Hospital, etc., according to locality.

TRANSFER OF CHINESE PATIENTS.

Attention has been called in previous reports to the transfer of Chinese insane to their native land; but so far, the subject seems to have been treated with indifference. Viewed from an economical standpoint, I am sure it would be greatly to the advantage of the State to make the necessary provision for shipping them out of the country.

There are in this asylum at the present time, seventy-seven male and three female Chinese patients. Fully nine tenths of these may be classed as chronic cases, and will be a charge upon the State as long as they live. In the Napa Asylum there are thirty-nine, and in the Agnews Asylum eleven more, making a total of one hundred and thirty that are being maintained at an annual cost to the State of about \$18,000.

The estimated cost of sending all these patients to China is considerably less than one half the expense of supporting them in the asylum for one year. This estimate includes everything, even to the cost of experienced attendants to care for them while making the voyage. Aside from the expense of caring for these people, the question of additional room gained by their removal is one of great importance.

An effort should be made to induce the Legislature to memorialize Congress with the view of devising some plan under which all Chinese who are now inmates of our asylums, or who may hereafter become inmates, may be returned to their native country.

RELIGIOUS SERVICES.

Religious services have been held weekly—on Sabbath afternoons—much of the time for the past two years, in the Social Hall. The clergymen of every denomination in this city were invited to hold services, with the understanding that if, after trial it was thought to be productive of good, the services should be regularly continued, unless some special reason might prevent. Five ministers responded to the invitation, and as the patients have evinced such an interest in the services it has been considered best to continue them. The hall is comfortably filled

each Sabbath by an orderly and attentive audience. An organ has been purchased from the Fancy Work Fund, several dozen chapel service books have been procured, a good choir has been organized, and the singing is excellent. Many of the patients derive more comfort and enjoyment from this than from any other diversion that has been offered them.

Each minister is paid \$5 for each service held.

EMPLOYMENT.

Under the patient management of Mrs. Ramsell, the Matron, and with the kindly aid of the attendants, a system has been inaugurated of giving many of the women useful and pleasant employment in the way of knitting, crocheting, embroidery, and the making of a variety of fancy articles; the proceeds of the sale of which have been devoted to a special fund, to be used for the purchase of books and other things most needful for the amusement of the female patients.

This plan was not adopted with a view of pecuniary profit, but rather as a means of whiling away the tedium of asylum life.

AMUSEMENTS.

Except during the warm summer weather, weekly entertainments have been regularly provided for the patients. These entertainments have been varied with a view of gratifying the tastes of all so far as practicable. Some theatrical plays have been furnished by the attendants, they being well rendered, and much appreciated. A vocal and instrumental concert once a month, under the management and leadership of Dr. Hoisholt, has proved quite a feature.

Probably the most novel and enjoyable entertainment that was ever had in the history of this asylum, was given on the evening of Washington's birthday; it being a grand mask calico ball. The costumes for the ladies were made by the female attendants and patients. Those for the gentlemen were made by that ever faithful and ingenious servant of the State, Mr. T. W. Eaves, and although made from cheap grades of calico, yet such taste and harmony was exhibited in the blending of the various colors as to render them peculiarly rich and attractive in appearance. The grand march presented a novel spectacle, with nearly a hundred well sustained characters on the floor.

The amusement and gratification it afforded the patients more than compensated for all the trouble entailed. The event furnished a subject for discussion long after its occurrence, and the monotony and humdrum of asylum life was lessened for a time at least.

BEREAVEMENTS.

The biennial period now drawing to a close has had its bereavements. Three trusted servants of the State in the employ of the asylum have passed to their final reward.

Charles Ruoff, on account of failing health, tendered his resignation in March, 1889, after a continued service of twenty-nine years, and he died on the eighth day of May, 1889. He always merited the confidence of the management for punctuality, and for the faithful manner in which

he discharged the important duties of Night Watchman for so many years. Mr. Ruoff was a musician of considerable ability; and in this, and other ways, rendered material aid in affording amusement and diversion for the patients. His loss is deeply felt.

On April 23, 1889, Mr. Jos. B. Watson, the Supervisor, died after a tedious and painful illness. The trying position which Mr. Watson so ably filled was a constant proof of his remarkable fitness and adaptability. A more zealous, painstaking, efficient, and discreet officer one seldom meets. I speak from an experience gained through the most intimate, confidential relations with him from the time I assumed control of the asylum, and at the time when his familiarity with details made him an indispensable factor in the successful conduct of the affairs of the institution. With all due respect and credit to his memory, be it said that he was never found deficient in discretion and sound judgment. In all his actions he was ever influenced by the highest standard of moral excellence. He was just and honorable, because it was most suitable to his tastes. He was ever gentlemanly in bearing, for the reason that it was an instinct of his noble nature. His devotion to duty was remarkable; and with conscientious regard to precision and detail, he continued his services contrary to the advice of the medical staff, and at a time when only the bravest heart could brook such physical pain. Full of hope to the end, he bore his sufferings patiently and uncomplainingly, and ended his career as an honorable, upright, and polished gentleman.

Dr. William Augustine Washington, the First Assistant Physician, died of apoplexy on September 4, 1889, at San Diego, where he had gone in quest of health. He had been ailing for some time, but performed his accustomed duties to within a few days of his death. His sudden demise was unexpected, and was a terrible shock to his family and his numerous friends.

Dr. Washington was a lineal descendant of the Washington family, around the name of which clusters a halo of memories of self-sacrifice, liberty, and patriotism. He was born on the bank of the Potomac River, in Westmoreland County, Virginia, on March 5, 1833, and was at the time of his death fifty-six years, five months, and nineteen days old. His medical education was obtained at the Virginia Medical College, from which he graduated on March 9, 1858. He was early married to Miss S. J. James, who survives him. To them were born seven children; four of whom, three daughters and a son, are living. From the time he graduated in medicine to the close of his life, his time was occupied in the practice of his profession. His early career as a physician was spent in his native State, in South Carolina, and in Maryland. In 1872 he came to California, and practiced for a time in Vallejo. In 1873 he moved to Merced, where he enjoyed an excellent practice for eight years, moving from there to San Francisco. After a year's residence there, he came to this city, and was in 1886 elected an Assistant Physician at the asylum.

Dr. Washington was one of the most conscientious physicians I ever knew, both in regard to his duty to his patients and his professional fellows. He was a close observer of the ethics of his profession, and would never knowingly infringe upon the rights of others. In all his obligations to the sick he was as true as the needle to the pole. His visits to the sick chamber were benedictions. His genial smile, warm grasp of

the hand, his assurance of tenderness and sympathy, and his cheering words were oftentimes more potent than the resources of the pharmacopœia. His friendships were true and lasting, and the individual in the humblest walk in life could ever approach him in confidence of meeting with recognition and a hearty response. His attitude before his fellow man was ever gauged by a just sense of respect for the rights of others; hence, arrogance and bigotry were as foreign to his nature as would be perennial bloom on glacier mountains in polar seas. In his views on all subjects, he was liberal and free from fanaticism. His gentlemanly instincts bore him above caprice and contumely, while comity of manner and the due observance of the social amenities were singularly characteristic of the man.

Home was made more sacred through the richness of his bright example as husband and father; for with his family he was kind and indulgent, and his heart glowed with affection. In the daily routine of his duties to the sick the purity and sweetness of his generous sympathy illuminated his face with a benign expression that reigned as the countenance of his soul. Hence it was that among the suffering and sorrowing he was greatly appreciated; and when the sad news came that his life was ended, many hearts were made desolate. Even from the asylum wards, where he had so recently labored, came expressions of sorrow from those who had lost their true friend and sympathizer.

While he loved to be appreciated for his own true worth, yet public notoriety and eclat were inimical to his tastes, and were embarrassing in the extreme. No one was freer to accord to others the award of merit. Nevertheless, ostentation and vainglory he utterly despised.

He was a man of pure thought and of bright example, and his influence was salutary and benign. Constancy and integrity were distinctive marks of his character, and he died as he had lived, a trusted friend, affectionate husband, devoted father, good citizen, faithful, skillful, and unpretentious physician.

ACKNOWLEDGMENTS.

During the incumbency of my esteemed predecessor, Dr. W. H. Mays, an appeal was made to the newspaper press throughout the State for gratuitous copies of the various journals for the use of the patients. It affords me the greatest pleasure to hereby express my gratitude for these continued favors. The following are still regularly received and distributed among the patients:

Daily.—San Francisco Call, Daily Alta, Courier de San Francisco, Abend Post, Evening Post, Stockton Independent, Evening Mail, Sacramento Record-Union, Sacramento Bee, San José Herald, Fresno Republican, Virginia City Chronicle, San Bernardino Courier, Sonoma Democrat, Daily Morning Republican, Stockton Republican, La Voce del Popolo.

Weekly.—San Francisco Chronicle, Examiner, Weekly Post, Journal of Commerce, Report, Spirit of the Times, Jewish Progress, Rural Press, Stockton Record, Franco-Californian, Stockton Independent, Amador Dispatch, Anaheim Gazette, Biggs Argus, Colusa Sun, Contra Costa Gazette, Dixon Tribune, Ione Valley Echo, Kern County Californian, Los Angeles Tribune, Los Angeles Weekly Herald, Los Angeles Times-Mirror, Lakeport Democrat, Lodi Sentinel, Livermore Echo, Marysville Appeal, Ontario Record, Placer Argus, Placer Republican, Santa Ana

Standard, Santa Clara Journal, San Diego Union, Sonora Democrat-Banner, San Benito Advance, Visalia Delta, Post-Intelligencer, Gridley Herald, Plumas National, The Pacific, Petaluma Courier, Bedrock Democrat, Tulare County Times, Catholic Review, Calaveras Chronicle, Cloverdale Reveille, Rohnerville Herald, Lyon County Times, Mariposa Gazette, Placer Herald, Tuolumne Independent, Lake County Avalanche, Weekly-Disseminator, Yolo Mail, Tulare Register, San Miguel Messenger, Oregon Statesman, Stanislaus News, Sierra Valley Leader, Galt Gazette, Scientific Press, Calaveras Prospect, Colusa Herald, Der Deutsche Amerikaner, Contra Costa Democrat, Porcupine, Scott Valley News, Tacoma News, Winters Express, Inyo Register, Inyo Independent, Western Watchman, Mendocino Beacon, Las Gatos News, Weekly Reveille, Corvallis Gazette, Salinas Democrat, The Inlander, Virginia Chronicle, Mountain Messenger, Monitor.

I also take pleasure in expressing my obligations to the following persons for their kind assistance in furnishing amusement for the patients, and for large contributions of fancy work, magazines, periodicals, books, etc.:

Mrs. and Miss Edith Eaves, Mrs. S. D. Abramsky, Misses Louisa and Emma Cordes, Misses Gertie and Amy Hopkins, Miss Gertie Lang, Miss Nannie McCarty, Miss Mary Miller, Miss Esther Marks, Miss Ada Wheaton, Miss Nellie S. White, Miss Parks, Mrs. Gifford, Misses Nellie and Mamie Miller, Misses Myrtle and Pearl Abbott, Miss Nellie Deeble, Mr. Ira D. Ladd, Mr. M. Wenk, Mr. William Jones, Mr. E. Sylvia, Mr. G. Earle, Mr. L. Harkness, and the Stockton Sing Verein, comprising Messrs. Schneider, Wirth, Simon, and Felchin.

Thanks are specially due to Miss Eliza Lang and Mr. H. Prangley, for their kind assistance on various occasions in drilling the attendants for our theatrical entertainments.

It is very necessary that those having the immediate care of the insane should be possessed of special qualities of heart and temperament. In fact, one who does not have perfect self-control is out of one's sphere when on duty in the wards of an asylum. It is not surprising, then, that in an institution giving employment to so large a number, that some are found, who, upon trial, prove to be wholly unfitted for the work. The rule has been to select from the large number of applicants only those who give the very best promise of success without any regard to personal favoritism.

A few have been dismissed who had not the necessary qualifications, or for violation of the rules. But I venture the assertion, that taken as a whole, no more intelligent or trustworthy body of men and women is to be found in any asylum anywhere, than those who do service in the capacity of attendants at this institution. I take this occasion to publicly express my thanks to them for the faithful, intelligent, and zealous manner in which they discharge their duties, and for the constant courtesy and respect which they have shown me.

To all the employés and officers whom I am necessarily more closely associated with in the management of the asylum, I am ever conscious of my debt of gratitude. Their uniform constancy and their regard for the best interests of the asylum are most commendable.

To Drs. Young, Phillips, and Hoisholt, I have reason to be grateful. They have ever shown a kindly interest in the successful management of the institution, have always been willing to aid me, and lighten my

burdens in every way they could, and my association with them has been most pleasant and gratifying. Through their kind assistance, considerable pathological work has been done since the completion of our new morgue, and a systematic record is being kept of the more important cases.

In conclusion, I desire to thank you, gentlemen of the Board, individually and collectively, for your uniform courtesy and kindness, which I assure you, in all sincerity, is most heartily appreciated.

The comfort, happiness, and general welfare of the patients, and the asylum in all its varied interests, have been objects of daily solicitude with me.

If, during my endeavors to satisfy your most sanguine expectations, I have succeeded in meeting your approval, I shall feel more than repaid for all my efforts.

H. N. RUCKER,
Medical Superintendent.

OCTOBER 10, 1890.

STATISTICAL TABLES, 1890.

MOVEMENT OF PATIENTS.

	Males.	Females.	Total.
Number of patients July 1, 1889.....	1,140	440	1,580
Admitted during year.....	242	84	326
Whole number under treatment.....	1,382	524	1,986
Discharged recovered.....	112	22	134
Discharged improved.....	30	15	45
Discharged unimproved.....	11	8	19
Discharged not insane.....	4	-----	4
Died.....	91	20	111
Escaped.....	5	-----	5
Discharged, died, and escaped.....	253	65	318
Number remaining June 30, 1890.....	1,129	459	1,588

GENERAL STATISTICS.

Number of Admissions, Recoveries, Deaths, etc., from Foundation to July 1, 1890.

YEAR.	Admissions	Recoveries	Discharged Unrecovered	Deaths	Escaped	Number Resident at the (Loss of each Year	Increase	Decrease	Whole Number Treated.	Per Cent of Recoveries to Admissions	Per Cent of Deaths to the Number Treated
1851	13	6		1		6	6		13	46.15	7.69
1852	124	50	6	10		62	56		130	40.32	7.69
1853	160	108	8	12		103	41		222	67.50	5.40
1854	202	150	13	21		134	31		305	74.00	6.89
1855	214	168	16	18		162	28		348	78.50	5.20
1856	210	126	15	23		172	10		382	60.00	6.02
1857	206	81	17	28		188	16		378	39.32	7.33
1858	244	112	20	32		273	85		432	45.90	7.41
1859	276	112	22	49		370	97		549	40.58	8.91
1860	248	123	21	54	10	417	47		618	49.59	8.73
1861	198	154	34	33	14	416		1	615	77.77	5.36
1862	301	127	14	65	12	499	83		717	42.19	9.06
1863	252	105	17	47	12	583	84		751	41.67	6.26
1864	219	101	25	82	12	581		2	802	46.12	10.22
1865	268	93	15	82	27	632	51		849	34.70	9.66
1866	279	131	13	62	12	693	61		911	46.95	6.81
1867	313	125	14	89	9	769	76		1,006	40.00	8.80
1868	387	146	13	134	10	853	84		1,156	37.73	11.59
1869	482	225	16	159	15	920	67		1,335	46.68	11.91
1870	562	221	36	156	22	1,047	127		1,482	39.32	10.55
1871	523	245	36	176	23	1,090	43		1,570	46.84	11.21
1872	506	240	33	188	12	1,123	33		1,596	47.43	11.78
1873	401	185	19	152	12	1,156	33		1,524	46.13	9.97
1874	524	209	46	178	23	1,224	68		1,680	39.88	10.59
1875	615	259	71	181	26	1,302	78		1,839	41.95	9.84
1876	414	252	60	172	18	1,214		88	1,716	61.26	10.03
1877	201	83	30	100	7	1,195		19	1,415	41.29	7.06
1878	219	80	19	106	7	1,202	7		1,414	36.53	7.49
1879	106	58	16	100	7	1,127		75	1,308	54.71	7.64
1880	114	40	9	72	4	1,116		11	1,241	35.08	5.80
1881	149	54	16	92	1	1,102		14	1,265	36.24	7.19
1882	179	71	11	93	11	1,095		7	1,281	39.67	7.27
1883	258	68	10	86	5	1,184	89		1,353	26.36	6.35
1884	264	113	22	87	11	1,215	31		1,448	42.80	6.01
1885	341	60	19	87	11	1,379	164		1,556	17.60	5.59
1886	504	201	45	135	16	1,486	107		1,883	39.86	7.17
1887	447	179	27	133	8	1,553	67		1,900	43.23	7.00
1888	463	214	19	130	7	1,646	93		2,016	46.22	6.00
1889	529	194	259	134	8	1,580		66	2,175	36.67	8.48
1890	326	138	64	111	5	1,588	8		1,906	42.33	5.82
Totals	12,208	5,407	1,166	3,670	377		1,871	283			

TABLE A.

Counties from which Patients were Admitted.

COUNTIES.	Males.	Females.	Total.
Alameda	28	16	44
Amador	2	1	3
Butte	5	—	5
Calaveras	2	—	2
Contra Costa	2	2	4
El Dorado	2	—	2
Fresno	13	1	14
Inyo	1	1	2
Kern	9	1	10
Los Angeles	37	13	50
Marin	2	—	2
Mariposa	5	—	5
Mendocino	1	—	1
Merced	7	—	7
Monterey	4	—	4
Nevada	2	1	3
Orange	2	1	3
Placer	2	2	4
Sacramento	16	1	17
San Benito	—	1	1
San Bernardino	11	3	14
San Diego	10	1	11
San Francisco	25	18	43
San Joaquin	18	13	31
Shasta	7	—	7
Sierra	4	—	4
Siskiyou	2	2	4
Stanislaus	5	1	6
Sutter	1	—	1
Tulare	10	4	14
Tuolumne	2	1	3
Yolo	1	—	1
State Prison—Folsom	3	—	3
State Prison—San Quentin	1	—	1
Totals	242	84	326

TABLE B.

Nativity of those Admitted.

NATIVITY.	Males.	Females.	Total.
<i>United States.</i>			
Alabama	1		1
California	12	6	18
Connecticut	1	1	2
Delaware	1		1
Georgia	2		2
Idaho	1		1
Illinois	6	3	9
Indiana	2	1	3
Indian Territory	1		1
Iowa	7		7
Kansas	1		1
Kentucky	4	1	5
Louisiana		1	1
Maine	1	1	2
Maryland	1		1
Massachusetts	8		8
Michigan	2	1	3
Missouri	6	1	7
Nebraska		1	1
Nevada	1		1
New Jersey	2		2
New York	15	4	19
North Carolina	1		1
Ohio	4	2	6
Pennsylvania	5	3	8
Tennessee	2		2
Utah	1		1
Virginia	1		1
West Virginia	1		1
Washington	1		1
Wisconsin	1		1
United States	14	8	22
Totals	106	34	140
<i>Foreign Countries.</i>			
Austria	7	1	8
Azores	5		5
Belgium	2		2
Canada	7	3	10
China	14	1	15
Denmark	7	1	8
England	10	3	13
France	9	1	10
Germany	19	14	33
Greece	1		1
Ireland	17	13	30
Italy	4	2	6
Jamaica	1		1
Madeira	1		1
Mexico	4	3	7
Norway	5	1	6
Nova Scotia	1		1
Poland		1	1
Portugal	2		2
Russia	1		1
Scotland	2	3	5
Sweden	4	1	5
Switzerland	5		5
Wales	1	1	2
Unknown	7	1	8
Totals	136	50	186

RECAPITULATION.

NATIVITY.	Males.	Females.	Total.
United States.....	106	34	140
Foreign countries.....	129	49	178
Unknown.....	7	1	8
Totals.....	242	84	326

TABLE C.

Age when Insanity first Appeared.

AGES.	Males.	Females.	Total.
Under 10 years.....	2		2
Between 10 and 15 years.....	3		3
Between 15 and 20 years.....	9	3	12
Between 20 and 25 years.....	25	9	34
Between 25 and 30 years.....	43	9	52
Between 30 and 35 years.....	36	16	52
Between 35 and 40 years.....	42	12	54
Between 40 and 45 years.....	11	12	23
Between 45 and 50 years.....	16	9	25
Between 50 and 55 years.....	12	6	18
Between 55 and 60 years.....	14	4	18
Between 60 and 65 years.....	8	1	9
Between 65 and 70 years.....	7		7
Between 70 and 75 years.....	4	1	5
Between 75 and 80 years.....	1		1
Unknown.....	9	2	11
Totals.....	242	84	326

TABLE D.

Age at Time of Admission.

AGES.	Males.	Females.	Total.
Under 10 years.....			
Between 10 and 15 years.....	2		2
Between 15 and 20 years.....	9	1	10
Between 20 and 25 years.....	20	6	26
Between 25 and 30 years.....	36	8	44
Between 30 and 35 years.....	35	12	47
Between 35 and 40 years.....	38	14	52
Between 40 and 45 years.....	27	13	40
Between 45 and 50 years.....	12	11	23
Between 50 and 55 years.....	18	6	24
Between 55 and 60 years.....	10	4	14
Between 60 and 65 years.....	10	6	16
Between 65 and 70 years.....	8		8
Between 70 and 75 years.....	6	1	7
Between 75 and 80 years.....	2		2
Unknown.....	9	2	11
Totals.....	242	84	326

TABLE E.

Cause of Insanity, as Stated in Commitments.

CAUSE.	Males.	Females.	Total.
Alcoholism	8	2	10
Spiritualism and alcohol	1		1
Masturbation and alcohol	2		2
Cigarettes and alcohol	1		1
Intemperance and injury to head	1		1
Heredity	13	7	20
Heredity and loss of children		1	1
Heredity and religion	1	1	2
Heredity and masturbation	1		1
Heredity and business troubles	2		2
Epilepsy	5	2	7
Epilepsy, tobacco, etc.	1		1
Masturbation	23		23
Religious excitement	11	3	14
Troubles and religion	1	1	2
Family troubles	3	2	5
Loss of property and family troubles	2	1	3
Loss of work and loss of friends	2		2
Business troubles	4		4
Injury to head	8		8
Diseases of the brain	4	2	6
Softening of the brain	2		2
Mental worry and overwork		1	1
Spiritualism	1	3	4
Ill health and troubles	1		1
Ill health and loss of child		1	1
Ill health	1	2	3
Nervous prostration	1		1
Senility	3		3
Syphilis	1		1
Syphilis and softening of brain	1		1
Uterine disorder		3	3
Puerperal		2	2
Isolation	2		2
Irregular habits	3		3
Change of life		1	1
Exposure	1		1
Excessive use of cigarettes	1		1
Disappointment	2		2
Opium	1		1
Traumatic head injury	1		1
Typhoid	1		1
Malaria	1		1
Childbirth		1	1
Hysteria		1	1
Environment	1		1
Severe injury		1	1
La grippe		1	1
Death of wife	1		1
Lead poison	1		1
Politics	1		1
Departure of friend for Europe		1	1
Absence from home and kindred	1		1
Fright from seeing a boy-made ghost	1		1
Jealousy		1	1
Death of father-in-law		1	1
Unknown	118	42	160
Totals	242	84	326

TABLE F.

Classification.

CLASS.	Males.	Females.	Total.
Mania	7	2	9
Acute mania	59	19	78
Chronic mania	18	12	30
Recurrent mania	11	2	13
Sub-acute mania	3	1	4
Suicidal mania	2	—	2
Erotomania	—	1	1
Religious mania	3	2	5
Transitory mania	1	—	1
Mania a potu	1	—	1
Monomania	13	3	16
Melancholia	25	14	39
Melancholia atton	1	—	1
Acute melancholia	20	6	26
Chronic melancholia	5	4	9
Recurrent melancholia	2	—	2
Puerperal melancholia	—	2	2
Dementia	8	1	9
Primary dementia	10	4	14
Secondary dementia	6	1	7
Acute dementia	2	—	2
Chronic dementia	5	—	5
Senile dementia	5	1	6
Partial dementia	11	3	14
Alcoholic dementia	1	—	1
Epilepsy	8	—	8
Hypochondriasis	2	1	3
Moral insanity	1	—	1
Delusional insanity	3	—	3
Toxic insanity	1	3	4
Hysterical insanity	—	2	2
Alcoholism	5	—	5
Not insane	3	—	3
Totals	242	84	326

TABLE G.

Civil Condition.

CIVIL CONDITION.	Males.	Females.	Total.
Married	52	49	101
Single	139	23	162
Widows	—	11	11
Widowers	8	—	8
Divorced	2	—	2
Unknown	41	1	42
Totals	242	84	326

TABLE H.

Occupations.

OCCUPATIONS.	Males.	Females.	Total.
Actress		1	1
Architect	1		1
Attorneys at law	3		3
Baker	1		1
Book agent	1		1
Boilermakers	2		2
Bridge builder	1		1
Cabinetmaker	1		1
Carpenters	8		8
Carriage painter	1		1
Chemist	1		1
City Marshal	1		1
Clerks	2		2
Cooks	9		9
Coppersmith	1		1
Dentist	1		1
Dish washer	1		1
Domestics		16	16
Dressmaker	1		1
Engineer	1		1
Fancy work		1	1
Farmers	25		25
Fisherman	1		1
Florist	1		1
Gardener	1		1
Grocery clerk	1		1
Guide	1		1
Harnessmaker	1		1
Hostler	1		1
Housekeepers		3	3
Housewives		44	44
Laborers	92	2	94
Laundress		1	1
Laundryman	1		1
Lumber inspector	1		1
Lumberman	1		1
Machinists	2		2
Magnetic healer	1		1
Mechanics	2		2
Miners	8		8
Music teacher		1	1
Nurse		1	1
Painters	5		5
Paper hanger	1		1
Photographer	1		1
Plasterer	1		1
Priest	1		1
Printers	2		2
Railroad clerk	1		1
Railroad foreman	1		1
Sailors	5		5
Salesman	1		1
Saloonkeeper	1		1
School teachers	2	1	3
Seamstress		1	1
Sheepherders	4		4
Sheep owner	1		1
Shoemaker	1		1
Steamboatman	1		1
Storekeepers	4		4
Tailor and musician	1		1
Tanner	1		1
Teamsters	2		2
Tramp	1		1
Waiter	1		1
No occupation	8	3	11
Unknown	19	8	27
Totals	242	84	326

TABLE I.
Cause of Death.

CAUSE.	Males.	Females.	Total.
Consumption.....	7	2	9
Paralysis.....	3	3	6
Pulmonary tuberculosis.....	7	—	7
Maniacal exhaustion.....	4	1	5
Epileptic fit.....	3	1	4
Marasmus.....	3	1	4
Senile decay.....	1	3	4
Apoplexy.....	3	—	3
Heart disease.....	3	—	3
Heart failure from senile exhaustion.....	1	—	1
Suicide.....	3	—	3
General paresis.....	3	—	3
Chronic nephritis.....	3	—	3
Pyelo nephritis.....	1	—	1
Inanition.....	2	1	3
Organic disease of brain.....	2	1	3
Meningitis.....	2	—	2
Symmetrical gangrene and exhaustion.....	2	—	2
Cerebral paralysis.....	2	—	2
Bright's disease.....	2	—	2
Fatty degeneration of the heart.....	2	—	2
Heart and Bright's disease.....	1	—	1
Cerebral hemorrhage.....	2	—	2
Inflammation of the bowels.....	2	—	2
Mesenteric tuberculosis.....	—	2	2
Hydrocephalus externus acutus.....	2	—	2
Gastritis.....	—	1	1
Exhaustion from acute mania.....	—	1	1
Syphilitic disease of brain.....	1	—	1
Ovarian tumor.....	—	1	1
Progressive bulbar paralysis.....	1	—	1
Heart clot.....	1	—	1
Cerebral apoplexy.....	1	—	1
Cerebral effusion.....	1	—	1
Cerebral meningitis with effusion.....	1	—	1
Typho-malarial fever.....	—	1	1
Exhaustion from chronic insanity and paralysis.....	1	—	1
Embolie thrombosis of brain.....	1	—	1
Rupture of aorta ascendens.....	1	—	1
Valvular disease of the heart.....	1	—	1
Media stinal abscess.....	1	—	1
Impaction of food in œsophagus.....	1	—	1
Bronchitis.....	1	—	1
Catarrhal pneumonia.....	1	—	1
Pulmonary œdema.....	1	—	1
Descending degeneration of spinal chord.....	1	—	1
Accidental strangulation.....	1	—	1
Syncope.....	1	—	1
Hæmoptysis.....	1	—	1
Pneumonia.....	1	—	1
Dropsy.....	1	—	1
Cancer.....	1	—	1
Cerebritis.....	1	—	1
Diarrhœa.....	1	—	1
Suppurative cystitis.....	1	—	1
Phthisis pulmonalis.....	—	1	1
Totals.....	91	20	111

ACCOUNT OF ARTICLES CONSUMED AND ANNUAL EXPENDITURES AT
THE ASYLUM.

ARTICLES.	Value.
Flour.....	\$10,027 40
Meat.....	20,750 18
Sugar.....	4,115 14
Tea.....	893 00
Syrup.....	893 88
Potatoes.....	3,240 45
Butter.....	8,865 85
Coffee.....	3,825 88
Fish.....	1,049 00
Eggs.....	535 09
Beans and pease.....	865 93
Rice and cracked wheat.....	1,307 44
Cornmeal.....	398 42
Fruit.....	1,384 00
Vegetables.....	949 80
Salt.....	170 83
Vinegar.....	86 31
Small groceries.....	1,966 46
Soap, starch, and potash.....	1,250 55
Drugs and medicines.....	1,753 95
Liquors.....	332 25
Tobacco.....	1,272 28
Dry goods.....	2,974 06
Clothing and hats.....	5,572 37
Shoes and leather.....	2,193 57
Blankets.....	1,619 50
Furniture and crockeryware.....	2,669 82
Hardware and tinware.....	1,219 16
Bedding.....	1,671 86
Brooms and brushes.....	442 49
Hay, grain, and feed.....	4,298 82
Garden seeds and tools.....	365 52
Lumber.....	1,140 77
Repairs and improvements.....	2,664 24
Paints, oils, and glass.....	1,750 42
Books and stationery.....	826 61
Gas and oil.....	2,574 15
Fuel.....	19,360 27
Castings, pipes, and iron.....	2,722 47
Advertising for supplies.....	300 00
Services of Directors and Secretary.....	1,556 60
Discharged patients.....	484 00
Returned escapes.....	263 65
Payroll and wages.....	99,424 40
Miscellaneous.....	1,504 43
Total.....	\$223,033 87

REPORT OF THE DIRECTORS OF THE
COST OF THE DIFFERENT DEPARTMENTS.

DEPARTMENTS.	Cost.
Male kitchen and dining-room.....	\$39,289 05
Male department.....	63,086 69
Female kitchen and dining-room.....	18,906 91
Female department.....	37,378 51
Bakery.....	11,415 00
Engine houses and laundries.....	9,330 25
Farm, garden, and dairy.....	10,228 60
Repairs and improvements.....	5,555 43
General mechanic's shop.....	1,100 04
Drug store.....	2,225 58
Office.....	759 81
Advertising for supplies.....	300 00
Services of Directors and Secretary.....	1,556 60
Medical Superintendent.....	5,367 39
Assistant Physician.....	4,300 00
Assistant Physician.....	4,300 01
Assistant Physician.....	4,300 00
Miscellaneous.....	3,634 00
Total.....	\$223,033 87

AVERAGES.

MONTHS.	Average No. of Patients Daily.	Average Daily Expenses.	Average Cost per Capita per day (Cts).	Average Cost per Capita per Month.
1889—July.....	1,592	\$562 71	35.3	\$10 94
August.....	1,606	609 00	37.9	11 75
September.....	1,610	588 38	36.5	10 95
October.....	1,604	618 59	38.6	12 06
November.....	1,589	662 65	41.7	12 51
December.....	1,582	641 89	40.6	12 58
1890—January.....	1,578	637 28	40.4	12 52
February.....	1,577	643 26	40.8	11 42
March.....	1,587	596 54	37.6	11 65
April.....	1,601	625 34	39.1	11 73
May.....	1,602	568 83	35.5	11 00
June.....	1,604	581 70	36.2	10 86
Yearly averages.....	1,594	\$611 05	38.3	\$11 66

PRODUCTS OF THE FARM, GARDEN, AND DAIRY.

ARTICLES.	Amount.
Beats, pounds.....	12,470
Tomatoes, pounds.....	21,891
Parsnips, turnips, and carrots, pounds.....	28,526
Pears and string beans, pounds.....	3,890
Pumpkins and squash, pounds.....	48,590
Egg plant and radish, pounds.....	1,825
Green corn and cucumbers, dozens.....	5,741
Celery, pounds.....	97
Cauliflower and cabbage, pounds.....	31,286
Onions, pounds.....	19,780
Lettuce, dozens.....	643
Peppers and okra, pounds.....	980
Watermelons and cantaloupes, dozens.....	50
Hay and alfalfa, tons.....	100
Apples, pears, apricots, and peaches, pounds.....	22,890
Grapes, pounds.....	11,490
Beef, pounds.....	4,175
Milk, gallons.....	54,655
Eggs, dozens.....	532
Chickens, number used.....	

RECEIVED FROM GERLACH & FISK.

For swill, twelve months, at \$32 per month \$384 00

LIVE STOCK SOLD.

Stock.	Number Sold.	Price.
Calves.....	26	\$152 75
Bull.....	1	25 00
Horse.....	1	15 00
		\$192 75

LIVE STOCK ON HAND.

Stock.	Number.
Milch cows.....	63
Bull.....	1
Yearlings.....	14
Calves.....	9
Horses.....	8
Poultry: chickens, etc.....	70

BIENNIAL REPORT OF THE TRUSTEES

OF THE

STATE INSANE ASYLUM AT AGNEWS,

SANTA CLARA COUNTY, CALIFORNIA.

1890.



SACRAMENTO:

STATE OFFICE, : : : : : J. D. YOUNG, SUPT. STATE PRINTING.

1890.

OFFICERS OF THE ASYLUM.

BOARD OF TRUSTEES.

B. D. MURPHY, Chairman	San José.
O. A. HALE	San José.
V. KOCH	San José.
A. McDONALD	San José.
W. D. TISDALE	San José.

SECRETARY AND TREASURER.

L. G. NESMITH	San José.
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RESIDENT OFFICERS.

F. W. HATCH, M.D.	Medical Director.
W. F. PRATT, M.D.	First Assistant Physician.
EMILY McB. YEARGAIN, M.D.	Second Assistant Physician.
E. R. BAILEY	Secretary to Medical Director.
F. C. YOUNG	Steward.
Miss M. A. COYNE	Matron.
L. M. NAGEL	Steward's Clerk.
T. D. ARMSTRONG	Supervisor.

REPORT.

To his Excellency R. W. WATERMAN, Governor of the State of California:

SIR: The Trustees of the State Insane Asylum at Agnews herewith respectfully submit to you their biennial report covering the two fiscal years ending June 30, 1890, showing the financial and general condition of the institution, and the various building operations carried on during the two years referred to.

Since the last report made by the Trustees, the title and status have been changed; the former from "The California Hospital for the Chronic Insane," to "The State Insane Asylum at Agnews;" the latter from an Hospital for Chronic and Harmless Cases, to an Asylum of General Commitment. The Act making this change took effect March 11, 1889. Prior to that time patients had been received, in terms of the enabling Act, from the other asylums, as follows:

October 30, 1888, seventy-five patients received from Napa—fifty males and twenty-five females. November 26, 1888, received from Stockton two hundred patients—one hundred and forty males and sixty females. On December 12, 1889, one male patient was transferred from Napa. February 2, 1889, one male was transferred from Stockton. February 18, 1889, one hundred patients were transferred from Napa—sixty-five males and thirty-five females. Making the total number transferred from Stockton and Napa up to February 18, 1889, three hundred and seventy-seven.

The first commitment made under the Act of March 11, 1889, was on the twenty-sixth of that month. Since that date there have been three hundred and one patients admitted, two hundred and nine being males, and ninety-two females; making the total number received six hundred and seventy-eight.

The discharges, elopements, transfers, deaths, etc., are as follows: Discharged recovered, forty-seven; discharged improved, twenty-two; died, seventy-one; discharged unimproved, seven; not insane, one; transferred to Stockton, one; eloped, two; leaving in the asylum, June 30, 1890, five hundred and twenty-seven patients.

The excessive mortality, apparent in this statement, is explained by the fact that a majority of the patients transferred from Stockton and Napa were long past middle life, and many of them physically feeble.

We would report the completion of Ward Buildings Nos. 2 and 4, and carpenter shop and morgue (referred to in last report as in process of construction). These buildings were finished on or about June 10, 1889. As soon as the appropriation made for the purpose by the last Legislature was available, the two ward buildings referred to were furnished, and are now occupied.

In addition to these buildings, the last Legislature made an appropriation of \$125,000 for an administration building, and \$80,000 for an additional ward building. On September 13, 1889, contracts were let for both of these buildings. They are at this date very near com-

pletion. The same Legislature having made appropriations for the furnishing of these buildings, they will be occupied within a few months.

During the last two years Ward Buildings Nos. 2 and 4 have been supplied with a heating apparatus and fire service. On May 13, 1890, a contract for gasworks was entered into. These works will soon be completed. From the appropriation made for that purpose a watchman's electrical clock and fire alarm system has been placed in the buildings. In addition to the work referred to, subsidiary sewers have been constructed, connecting Ward Buildings Nos. 2 and 4 with the main temporary sewer. Concrete floors have been laid in boiler and engine house and Ward Building No. 1, and railroad track through basement, connecting latter building with the kitchen. There have also been constructed exercising yards for patients, in the rear of Ward Buildings Nos. 1, 2, and 4. A cow barn, and shed for the protection of farming implements, and a propagating house, have been erected. Grading, graveling, and the planting of trees and shrubbery have been carried on as well as the limited means at hand would permit. The asylum, as it now stands, that is, with administration building and Ward Building No. 3 completed, will accommodate about eight hundred patients.

From the commitments made during the last two years we feel confident that this number will be attained during the next two years. When the proximity of this asylum to the center of population in the State is considered, it will be apparent that a majority of the commitments will naturally be made to this institution. During the last year, out of nine hundred and eleven patients committed to the asylums of the State, four hundred and seventy-nine were from points within forty miles of Agnews. The asylums at Stockton and Napa are to-day in the same crowded condition they were when this asylum relieved them. In view of this fact, we deem it imperative that some provision should be made for the reception of the patients in excess of the number which could now be accommodated in the asylum, and for this purpose we would suggest the advisability of an appropriation for additional buildings. Two ward buildings, accommodating three hundred and sixty patients, can be erected at the low per capita of about \$485. This is made possible by the fact that the subsidiary buildings of the institution, such as kitchen building, bakery and laundry, boiler and engine house, and machinery, gasworks, carpenter shop and morgue, and water supply, are of a capacity for ward buildings sufficient to accommodate one thousand five hundred patients. Another point in favor of increasing the capacity of this asylum is the fact that by so doing the per capita cost of maintenance can be materially reduced.

We would call your attention to another important point in this connection: The fact that this asylum, being contiguous to the center of population of the State, comprising the great counties of San Francisco, Alameda, Santa Clara, Santa Cruz, San Mateo, Monterey, etc., will make it a favored institution among the friends and relatives of the unfortunates confined therein, on account of the railroad facilities which will enable them to leave their occupations, visit the asylum, and return on the same day, at comparatively nominal expense.

In the last report, the Trustees asked for an appropriation for the improvement of grounds, of \$20,000. This the Legislature did not see fit to grant, which is to be regretted, as the nature of the ground makes

it imperative that considerable work be done on the same, and especially in the planting of trees, etc.; this loss of two years is most unfortunate. We sincerely trust that the present Legislature will make an appropriation sufficient for this purpose. Another pressing necessity is a permanent sewerage system. As was stated in the last report, there is now a temporary sewer, emptying into a creek a short distance from the asylum buildings. This is most objectionable, being a menace to the health of those at the asylum, and the residents in that vicinity. The city of San José has been compelled to do away with a sewer emptying into the creek near this point, and to build, at large expense, a brick sewer to tide water.

It is the judgment of the Trustees, that a permanent sewer should be constructed from the asylum buildings to tide water on the bay, some four miles distant, and an appropriation is asked for this purpose.

We do not deem it necessary to emphasize the necessity of proper appropriation for the regular support or maintenance of the institution, feeling sure that the Legislature will grant the sum asked without any urging on our part.

For financial report of expenditures made from the appropriations of 1887-89, covering the period from July 1, 1888, to June 30, 1890, see report of Secretary and Treasurer, herewith appended.

For detailed statement of the general affairs of the asylum, necessity of appropriations, movement of patients, product of farm, etc., we would refer you to the report of the Medical Director, accompanied by the Steward's report, which are herewith annexed.

Below you will find statements of estimated required appropriations for the next two fiscal years.

Respectfully submitted.

B. D. MURPHY, Chairman,
O. A. HALE,
V. KOCH,
A. McDONALD,
W. D. TISDALE,

Trustees.

STATEMENT OF ESTIMATED APPROPRIATIONS REQUIRED.

Maintenance, salaries, etc., of the asylum	\$275,000 00
Main sewer	20,000 00
Improvement of grounds	20,000 00
Additional buildings	175,000 00

REPORT OF SECRETARY AND TREASURER.

To the honorable Board of Trustees of the State Insane Asylum at Agnews:

GENTLEMEN: Herewith find statements of expenditures for the two fiscal years ending June 30, 1890.

These expenditures are divided into two statements, as they are made from the appropriations of 1887, which were for the thirty-ninth and fortieth fiscal years; and of 1889, available during the forty-first and forty-second fiscal years.

For expenditures of appropriations of 1887, made prior to July 1, 1888, see last biennial report.

Expenditures from July 1, 1888, to June 30, 1889:

Support of hospital:		
Asylum	\$68,819 79	
Administration	2,743 92	
		\$71,563 71
Furnishing		18,477 91
Improvement of grounds		2,500 00
Purchase of live stock		849 47
Additional buildings:		
Contracts for Ward Buildings Nos. 2 and 4	\$119,199 70	
Contract for machinery	23,334 00	
Building expense—Architect's fees, Superintendent of Construction, surveying, advertising, etc.	6,294 87	
Other buildings:		
Reservoir	2,472 00	
Completion of smokestack	3,365 00	
Gas machine	3,000 00	
Subsidiary sewers	872 58	
Concrete floors and railroad track	2,857 00	
Extra work on machinery	1,968 88	
Extra work on second story laundry building	1,634 00	
Carpenter shop and morgue	4,798 00	
Plumbing, painting, sewers, and extra work on various buildings and machinery	4,073 97	
		170,870 00

Appropriations of 1889:

Support or maintenance of asylum	\$200,000 00
Administration building	125,000 00
Additional ward building	80,000 00
Heating	20,000 00
Lighting	25,000 00
Furnishing three ward buildings	10,000 00
Furnishing administration building	10,000 00
Watchman's clock indicator	1,000 00
Purchase of live stock	3,000 00

Contracts already awarded, and liabilities created against these various appropriations, will exhaust the same during the forty-second fiscal year.

Herewith find statement of expenditures of appropriations of 1889, covering the period between July 1, 1889, and June 30, 1890:

Support of hospital:

Asylum.....	\$89,683 81	
Administration.....	2,309 44	
		<hr/>
Purchase of live stock.....		\$91,993 25
Furnishing three ward buildings.....		2,406 15
Heating.....		7,557 60
Lighting.....		9,886 37
Additional buildings:		443 62
Administration building:		
Building expense.....	\$6,021 08	
Contract for building.....	67,497 00	
		<hr/>
		73,518 08
Ward building No. 3:		
Building expense.....	\$3,791 10	
Contract for building.....	44,771 50	
		<hr/>
		48,562 60

CONTINGENT FUND.

Receipts and disbursements from July 1, 1888, to June 30, 1890:

RECEIPTS.

Cash on hand July 1, 1888	\$661 05
Pasturage.....	5 00
Fruit and produce.....	373 77
Miscellaneous	156 30
Hay	1,936 36
Live stock	622 20
Pay patients.....	2,657 00
	<hr/>
	\$6,411 68

DISBURSEMENTS.

Expenses, asylum	\$636 25
Expenses, administration	1,236 94
Expenditures account, exhausted appropriations.....	230 34
Cash on hand June 30, 1890.....	4,308 15
	<hr/>
	\$6,411 68

Respectfully submitted.

L. G. NESMITH,
Secretary and Treasurer.

SAN JOSÉ, CAL., October 8, 1890.

REPORT OF MEDICAL DIRECTOR.

To the honorable Board of Trustees of the State Insane Asylum at Agnews:

GENTLEMEN: I herewith submit to you my reports for the two years ending June 30, 1890.

From the summary which follows, it will be seen that we commenced the year July 1, 1889, with three hundred and sixty-five patients; received two hundred and eighty-nine, and that the whole number under care and treatment was six hundred and fifty-four; discharged cured and improved, sixty-four; discharged unimproved, seven; not insane, one. There were fifty-four deaths and one escape.

Of the deaths a large number were chronic cases who had been inmates of asylums for many years. The winter months of December and January, which were attended by a large mortality throughout the State, were marked by an unusually heavy death rate with us.

Of the number admitted, eighty-nine were native born; one hundred and seventy-seven foreign born, and of twenty-three the nativity was unknown.

In looking backward over the period covered by this report, a few remarks as to the institution and its character may not be out of place, in consideration of the fact that it is a new asylum, and this its first report since its opening for the reception of patients. Under the name of the California Hospital for the Chronic Insane, and under the superintendency of Dr. W. W. Macfarlane, it was opened for the reception of patients October 30, 1888, on which day it received seventy-five patients of the chronic class transferred from the Napa Asylum for the Insane. Later transfers of chronic cases were made from the Stockton and Napa Asylums, bringing the entire number so received up to three hundred and seventy-seven. Dr. Macfarlane, to whom is due the credit of the organization and successful beginning of the institution, remained in charge until June, 1889, when he resigned to return to private practice.

Originally intended for the care of the chronic and harmless class of the insane, it remained more a home for those insane, who, by reason of the duration and character of their diseases, were looked upon as beyond a hope of recovery, than a hospital for the treatment of diseased minds, until March, 1889, when, by Act of the Legislature, it was authorized to receive patients by direct committal, as in the State Asylums at Stockton and Napa, and its name was changed to the State Insane Asylum at Agnews. Since the change it has received all classes of cases from nearly every section of the State.

The entire block of buildings contemplated by the various appropriations will be fully completed by December of this year. Upon its completion it will accommodate eight hundred patients properly. Built as it was, for the care of the chronic and harmless classes of the insane, its wards are not arranged in the most convenient manner for the treatment of acute cases, yet it has so many improvements, suggested by experience, that it may be said to be one of the best asylums in the State.

The various buildings composing the asylum proper are built of brick with stone trimmings, and form handsome and imposing structures, solidly constructed, and a credit to the State. In connection with the buildings we have a tract of land of about two hundred and seventy-five acres, affording space for farm, garden, and pasturage for our stock. Located about six miles northwest of San José, we are near enough to the bay of San Francisco to enjoy the tempering influence of the sea breezes.

Centrally situated, in one of the most flourishing and populous portions of the State, it would seem as if the institution was destined to become a large one from the very force of circumstances.

In view of the purpose for which it was created, it becomes necessary from time to time to ask for appropriations to render it even better adapted to care for those who come to it for relief, or are sent to it for the protection of themselves and the community.

The State is noted for its liberality to the defective and dependent classes, and though the burden may sometimes seem hard for the taxpayers to bear, they cannot but feel that money spent for humanity's sake is money well expended.

In the conduct of the asylum, I have endeavored to avoid any unnecessary and extravagant expenditure of the funds allotted your honorable Board for its support, and yet not to allow myself to go to the other extreme of parsimony. In all new institutions of this character, with a relatively small number of patients, the cost of maintenance appears large when compared with the older asylums, yet with a close attention to economy we have been able, during the fiscal year just passed, to keep well within the amount allowed us for support.

For the ensuing two years, I feel that it is safe to estimate that we will be able to maintain the asylum, with a due and proper regard for the comfort of its patients, at a cost of 48 cents per day per patient.

It is well within reason to expect that the house will be occupied to its full capacity of eight hundred patients during the next two fiscal years, and on this basis it would therefore require \$271,560 to support the institution up to June 30, 1893. To this sum should be added the sum necessary to pay for the insurance of the buildings, which would bring the entire amount up to \$275,000, in round numbers. This amount (\$275,000), I respectfully suggest to your honorable Board, should be asked of the Legislature for the purpose of support.

GROUND.

Nothing so adds to the attractiveness of an institution of this character as beautiful grounds and gardens. The grass plots, shaded by shapely trees and spotted with tinted flowers, not only do much to remove the idea of misery that surrounds a hospital for the insane, but they are really a part of the treatment of those whose misfortunes or the ravages of disease have caused their restraint in a house of this character; cut off from the pleasures and associations of the outer world, they must need to have their surroundings cheerful and beautiful to divert, attract, and interest. Well laid out and cultivated grounds afford an exercising space free from the idea of restraint that accompanies the usual airing court of an asylum.

Nature has given this locality a beautiful climate, the State has given

it appropriate buildings, and it is to be hoped that it will still further add to the good work by making such an appropriation as will enable us to improve the grounds to an extent that will add attractiveness to both. Efforts looking to the improvement of grounds have been hampered by building operations and lack of funds, but we will soon have a clear field, and with financial assistance will make the landscape worthy of the locality.

I would urge your Board to ask an appropriation of \$20,000 for improvement of grounds.

SEWERS.

The most carefully constructed buildings may become hotbeds of disease, if the means of disposing of its sewage are not good. Unfortunately, our system of sewerage is defective. Our main sewer is, at best, a temporary affair, an eight-inch pipe emptying into the nearest creek, and liable to give us trouble at any time. The proper solution of the sewerage question lies in the construction of a sewer to tide water near Alviso, or the erection of a furnace for its destruction by burning. I believe that it will require \$20,000 to construct a proper sewer to tide water, where it will give offense to no one. I am not at present able to speak definitely as to the cost of destroying our sewage by fire, but I have the subject under investigation.

I would suggest that the Legislature be asked to appropriate \$20,000 to perfect our sewerage system.

ADDITIONAL BUILDINGS.

Last, but not least, of our requirements, is an appropriation for the construction of two additional ward buildings. Lest it might seem that I am asking for additional room at a rather early date, permit me to set before your honorable Board some of the facts which tend to prove the necessity of erecting new buildings at this point, and at this time. Taking it for granted that all of our State Asylums are on pretty nearly the same general plane of excellence, as far as caring for the inmates and economy of administration are concerned, it follows that that asylum which is nearest the center of population from which the mass of the insane is supplied, and is therefore easier of access to both patients and relatives of patients, is in the end the most economical one for the taxpayer and the State.

The cost of transportation of insane to asylums amounts to fully \$30,000 a year, while the expense of visitation by friends and relatives of patients is often a serious item to the individual.

This asylum is located at a point within forty miles of a third of the population of the State. Within the last year, of the nine hundred and eleven patients committed to our State Asylums four hundred and seventy-nine were committed from points within forty miles of this institution. On the principle that that which is intended for the public good should be so fostered as to benefit the greater number, it would seem that an asylum so situated as to be easiest, quickest, and cheapest of access, should be enlarged from time to time as the needs of the public demand.

I am not unmindful of the fact that there are at present two new asylums now in course of construction in the northern and southern

parts of the State, but each of them have, so far as population is concerned, but a comparatively limited field to draw from.

Construction of buildings at this point will furnish the quickest and cheapest method of providing accommodation for patients. Estimating that two new ward buildings would cost \$175,000, and have a capacity of three hundred and sixty patients, they would be built at a cost not exceeding \$485 per patient, which is furnishing accommodation at a very small cost. We are enabled to do it thus cheaply by reason of having kitchen and outbuildings sufficiently large for an institution of three times our present capacity.

Confident that your Board will see the wisdom of increasing our capacity, I leave the matter in your hands.

In whatever way statistics may be read, or theories advanced, as to the increase or decrease of insanity, it is an indisputable fact that there is a gradual increase from year to year in our asylums of those who have to be cared for. That this is entirely due to a legitimate increase of new cases of insanity, is doubtful. The longer life of the insane when properly cared for, the committal of cases of nervous disease as insane, the increased confidence felt in the management of insane asylums, the facilities of travel, together with the accumulation of uncured cases, all tend to increase the number of those remaining in the institutions for the insane.

We may write and formulate ideas for the prevention of insanity, but the truth is, that the world is not ready to adopt the radical measures necessary to cut off the most prolific sources of supply.

For the sake of convenience, I present a summary of the appropriations needed for the ensuing two fiscal years:

Support	\$275,000 00
Improvement of grounds	20,000 00
Sewer to tide water	20,000 00
Two additional ward buildings	175,000 00
Total	\$490,000 00

ACKNOWLEDGMENTS.

I must express my acknowledgments to the officers and employes for their attention to the patients and fidelity in serving the best interests of the institution. With but few exceptions, they have all been faithful to their trust.

Dr. W. F. Pratt, the Senior Assistant Physician, is attentive, skillful, and active. Interested in his work, thoroughly identified with the welfare of the asylum, he has my hearty thanks for his well directed assistance.

Dr. Emily McBride Yeargain, the Junior Assistant, and the only female physician connected with the asylums of the State, finds a broad field of usefulness among the afflicted of her own sex; ministering to women with a woman's hand, she must needs carry comfort with her.

To our Steward, Mr. F. C. Young, I am indebted for his cordial coöperation in the economical management of the house.

Our efficient Secretary, Mr. E. R. Bailey, is always on hand, correct in his accounts, and attentive to his work.

To you, gentlemen of the Board, I must express my thanks for the

kind and generous manner in which you have treated me, your hearty response to my recommendations, and for the bestowal of that confidence which has been a stimulant to my work.

We are under obligations to the Rev. Dr. Snowden and Father Raggio, and others for their efforts in behalf of the spiritual welfare of our patients, and the following named publishers and others for books, periodicals, and newspapers gratuitously supplied:

Catholic Fathers, Santa Clara, papers and magazines; Mr. Bope, San José, papers and magazines; Mrs. J. Sullivan, San José, papers and magazines; San José Daily Times, San José; San José Daily Herald, San José; San Francisco Daily Call, San Francisco; E. H. Guppy, San José, magazines; Elma Glover, San José, magazines and papers; Daily Post, San Francisco; La Sociedad, San Francisco; A'Unia Portuguesa, San Francisco; La Voce del Popolo, San Francisco; La Italia, San Francisco; Le Franco Californien, San Francisco; Hotel Gazette, San Francisco; Staats Zeitung, San Francisco; Nord California Herald, San Francisco; Gilroy Gazette, Gilroy, California; Oakland Daily Tribune, Oakland, California; Oakland Daily Times, Oakland, California; Bulletin, San Francisco; Livermore Echo, Livermore, California; News Letter, San Francisco; City Argus, San Francisco; Foothill Weekly Tidings, Grass Valley, California; Biggs Argus, Biggs, California; Sutter County Farmer, Yuba City, California; Der California Volts Freund, San Francisco; Daily Times-Index, San Bernardino, California; California Journal Und Sontag Gast, San Francisco; Deutsche Zeitung, San Diego, California; Kern County Californian, Bakersfield, California; La Cronica, Los Angeles, California; Visalia Delta, Visalia, California; Le Progress, Los Angeles, California; Weekly Argus, Petaluma, California; La Republica, San Francisco; Watsonville Transcript, Watsonville, California; Evening Item, Martinez, California; Chronicle, Vallejo, California; West American Scientist, San Diego, California; Sun, Colusa, California; Weekly Independent, Santa Barbara, California; Rural Press, San Francisco; San Benito Advance, Hollister, California; Vestkutsen, San Francisco; Register, Napa, California; Yolo Mail, Woodland, California; Weekly Tribune, Los Angeles, California; Telegraph, Boston, Massachusetts; Detroit Free Press, Detroit, Michigan; Placer Argus, Placerville, California; Redwood City Democrat, Redwood City, California; Weekly Mail, Stockton, California; Lake County Avalanche, Lakeport, California; Breeder and Sportsman, San Francisco; Democrat, Santa Rosa, California; Wasp, San Francisco; Courier-Item, Santa Cruz, California; Callaway Gazette, Fulton, Missouri; Monroe County Appeal, Paris, Missouri; Chicagoer Sonntagshote, Chicago, Illinois; Weekly Mirror, Los Angeles California; New Era, Key West, Florida; Normal Index, San José, California; Pacific Pharos, College Park, San José, California; Evening Express, Los Angeles, California; New England Staten Zeitung, Boston, Massachusetts; Weekly Republican, Fresno, California; Press and Horticulturist, Riverside, California; Chronicle, Virginia City, Nevada; The Kentucky Citizen, Paris, Kentucky; Phoenix, Riverside, California; Journal of Commerce, San Francisco; Santa Clara Journal, Santa Clara, California; Brooklyn Blade, New York, New York; Signs of the Times, Oakland, California; Fire and Hammer, Portland, Oregon.

Very respectfully,

F. W. HATCH,
Medical Director.

APPENDIX.

APPENDICES.

NUMBER OF ADMISSIONS, RECOVERIES, DEATHS, ETC.

The following table shows the number of admissions, recoveries, discharges, deaths, elopements, number resident at close of each year, the increase of each year, whole number treated each year, and in the aggregate; also, the ratio of recoveries and deaths each year, and for the whole time from October 30, 1888, to July 1, 1890:

	October 30, 1888, to July 1, 1889.	July 1, 1889, to July 1, 1890.
Admissions	389	289
Recoveries	3	44
Discharges, uncured	3	23
Deaths	17	54
Escapes	1	1
Number resident at close of each year	365	527
Increase	365	183
Whole number treated	389	654
Per cent of recoveries to admissions .....	.77	15.23
Per cent of deaths on number treated	4.37	8.26

REPORT OF THE MEDICAL DIRECTOR

FOR THE YEAR ENDING JUNE 30, 1889.

To the honorable Board of Trustees of the State Insane Asylum at Agnews:

GENTLEMEN: I herewith submit to you my report for the year ending June 30, 1889.

ANNUAL SUMMARY.

The following summary shows the number of patients admitted, number under care and treatment, number discharged, eloped, died, and transferred during the year, and the number remaining in the asylum June 30, 1889:

FROM JUNE 30, 1888, TO JUNE 30, 1889.	Males.	Females.	Total.
Number of patients, June 30, 1888			
Number admitted during the year:			
By transfer from the Napa Asylum	116	61	177
By transfer from the Stockton Asylum	141	60	201
Number admitted on direct commitments	7	4	11
Whole number under care and treatment	264	125	389
Number discharged recovered	1	2	3
Number discharged improved	1	1	2
Number died	17		17
Number eloped	1		1
Number transferred to the Stockton Asylum	1		1
Number discharged, died, eloped, and transferred	21	3	24
Number remaining June 30, 1889	243	122	365

TABLE I.

Showing the counties from which three hundred and eighty-nine patients were originally committed, from July 1, 1888, to July 1, 1889.

COUNTIES.	Males.	Females.	Total.
Alameda	22	22	44
Amador	2	1	3
Butte	5	—	5
Calaveras	6	—	6
Colusa	1	—	1
Contra Costa	1	—	1
El Dorado	1	1	2
Fresno	4	—	4
Humboldt	3	—	3
Kern	2	—	2
Lake	1	—	1
Los Angeles	17	19	36
Merced	2	2	4
Mariposa	2	—	2
Monterey	7	2	9
Mono	—	1	1
Marin	3	1	4
Napa	3	—	3
Nevada	4	2	6
Placer	6	—	6
Plumas	2	—	2
Santa Clara	22	23	45
Santa Cruz	13	5	18
San Francisco	76	30	106
San Mateo	10	2	12
Sonoma	5	—	5
Stanislaus	3	—	3
Sacramento	8	4	12
Solano	1	—	1
San Joaquin	15	5	20
San Benito	1	—	1
Siskiyou	2	—	2
Shasta	1	—	1
Santa Barbara	1	—	1
San Bernardino	2	1	3
Sutter	1	—	1
San Luis Obispo	1	—	1
San Diego	1	2	3
Sierra	—	1	1
Yuba	7	1	8
Yolo	1	—	1
Not given	1	—	1
Totals	264	125	389

TABLE II.

Showing the nativity of three hundred and eighty-nine patients admitted from July 1, 1888, to July 1, 1889.

NATIVITY.	Males.	Females.	Total.
<i>United States.</i>			
Arkansas	1	—	1
America	5	4	9
California	31	18	49
Connecticut	1	—	1
Delaware	1	—	1
Indiana	4	—	4
Illinois	5	4	9
Iowa	3	3	6
Kentucky	4	—	4
Mississippi	2	—	2
Massachusetts	6	4	10
Maryland	1	—	1
Missouri	1	4	5
Maine	2	2	4
Michigan	—	1	1
New York	10	4	14
New Jersey	1	—	1
Nebraska	1	1	2
New Hampshire	—	1	1
Ohio	3	1	4
Pennsylvania	5	1	6
South Carolina	2	—	2
Texas	2	—	2
Tennessee	—	1	1
Virginia	2	—	2
Utah	1	1	2
Louisiana	1	—	1
Wisconsin	—	1	1
Totals	95	51	146
<i>Foreign Countries.</i>			
Austria	2	—	2
Australia	—	1	1
Born at sea	—	1	1
Corsica	1	—	1
China	5	—	5
Canada	5	2	7
Chili	3	—	3
England	6	6	12
France	12	3	15
Finland	1	—	1
Germany	27	18	45
Italy	7	—	7
Ireland	44	28	72
Japan	1	—	1
Mexico	4	2	6
Norway	1	—	1
Prussia	9	2	11
Poland	2	—	2
Portugal	2	—	2
Russia	1	—	1
Sweden	5	3	8
Switzerland	8	2	10
South America	2	—	2
Scotland	2	1	3
South Africa	1	—	1
Spain	1	—	1
Unknown	16	2	18
Wales	1	1	2
Western Islands	—	2	2
Totals	169	74	243

RECAPITULATION.

NATIVITY.	Males.	Females.	Total.
United States.....	95	51	146
Foreign countries.....	153	72	225
Unknown.....	16	2	18
Totals.....	264	125	389

TABLE III.

Showing the ages of three hundred and eighty-nine patients at the time of their admission into the Asylum, from July 1, 1888, to July 1, 1889.

AGES.	Males.	Females.	Total.
Between 10 and 20 years.....	23	7	30
Between 20 and 30 years.....	82	33	115
Between 30 and 40 years.....	58	38	96
Between 40 and 50 years.....	36	33	69
Between 50 and 60 years.....	21	9	30
Between 60 and 70 years.....	16	1	17
Between 70 and 80 years.....	4	-----	4
Between 80 and 90 years.....	1	-----	1
Unknown.....	25	4	27
Totals.....	264	125	389

TABLE IV.

Showing the supposed causes of insanity in three hundred and eighty-nine patients, as stated in the commitments, from July 1, 1888, to July 1, 1889.

SUPPOSED CAUSES.	Males.	Females.	Total.
Chronic alcoholism	1		1
Cerebral congestion	1		1
Cerebro spinal meningitis	1	1	2
Congenital	2	1	3
Cerebral degeneration	1		1
Climatic changes		1	1
Change of life		2	2
Child birth		1	1
Congenital idiocy		1	1
Death of wife	1		1
Disappointment in love	2	1	3
Dread of losing eyesight	1		1
Domestic trials		3	3
Destitution		1	1
Epilepsy	17	6	23
Excessive study		3	3
Family troubles	1		1
Financial reverses of husband		1	1
Financial troubles	2		2
Hereditary	14	5	19
Intemperance	14	5	19
Injury by fall	2		2
Injury to brain	1		1
Intermittent fever	1		1
Inflammation of brain	1		1
Injury on head	4		4
Insane from birth	1		1
Inflammatory rheumatism		1	1
Jealousy		2	2
Loss of money	7	2	9
Loss of child	1		1
Loss of situation	1		1
Loss of husband		2	2
Loss of a friend		1	1
Masturbation	35		35
Measles		1	1
Morphine		1	1
Old age	2		2
Organic disease of brain	2		2
Overwork at school		1	1
Paralysis	2		2
Pregnancy		1	1
Puerperal		2	2
Religion	11	3	14
Spiritualism	1	1	2
Syphilis	3		3
Softening of the brain	1		1
Suppressed menses		3	3
Seduction		1	1
Uterine trouble		5	5
Unknown	129	66	195
Whooping-cough	1		1
Totals	264	125	389

TABLE V.

Showing the class of insanity of three hundred and eighty patients, as stated in commitments, from July 1, 1888, to July 1, 1889.

CLASS.	Males.	Females.	Total.
Active	1		1
Amentia	1		1
Chronic		1	1
Chronic meningitis		1	1
Dementia	38	11	49
Deuteropathic	1		1
Emotional	3	1	4
Epileptic	3	1	4
Erotomania		1	1
General	5	2	7
General paralysis	3		3
Idiotic	4	2	6
Imbecility		1	1
Mania	108	75	183
Melancholia	19	8	27
Monomania	32	14	46
Moral	2	1	3
Maniacal	1		1
Methomania	1		1
Nervosis spasmodica	1		1
Passive	1		1
Puerperal		1	1
Senile decay	1		1
Unknown	39	5	44
Totals	264	125	389

TABLE VI.

Showing the civil condition of three hundred and eighty-nine patients admitted from July 1, 1888, to July 1, 1889.

CIVIL CONDITION.	Males.	Females.	Total.
Divorced	1	2	3
Married	39	63	102
Single	197	42	239
Unknown	23	5	28
Widows		13	13
Widowers	4		4
Totals	264	125	389

TABLE VII.

Showing the occupation of three hundred and eighty-nine patients admitted from July 1, 1888, to July 1, 1889.

OCCUPATION.	Males.	Females.	Total.
Agents	1	—	1
Blacksmiths	4	—	4
Butchers	3	—	3
Bakers	5	—	5
Bookkeepers	1	—	1
Bookbinders	1	—	1
Clerks	3	—	3
Cooks	5	1	6
Cigarmakers	2	—	2
Cabinetmakers	1	—	1
Carpenters	2	—	2
Coppersmiths	1	—	1
Coopers	1	—	1
Dairymen	3	—	3
Druggists	1	—	1
Editors	1	—	1
Fishermen	1	—	1
Farmers	33	—	33
Glaziers	1	—	1
Gardeners	1	—	1
Housewives	—	63	63
Hostlers	1	—	1
Iron molders	2	—	2
Ironmongers	1	—	1
Janitors	2	—	2
Lumbermen	1	—	1
Laborers	83	—	83
Lawyers	2	—	2
Master mariners	1	—	1
Miners	12	—	12
Merchants	1	—	1
Marble cutters	1	—	1
Musicians	2	—	2
Mechanics	2	—	2
Milkers	1	—	1
Midwives	—	1	1
No occupation	22	31	53
Peddlers	4	1	5
Policemen	1	—	1
Painters	3	—	3
Prostitutes	—	3	3
Physicians	—	1	1
Sailors	8	—	8
Shoemakers	1	—	1
Soldiers	1	—	1
Shipwrights	1	—	1
Stonecutters	1	—	1
Saloonkeepers	2	—	2
Seamstresses	—	4	4
Servants	—	10	10
Tailors	3	—	3
Trunkmakers	1	—	1
Tinsmiths	1	—	1
Tanners	2	—	2
Teachers	—	3	3
Unknown	24	7	31
Wheelwrights	1	—	1
Weavers	1	—	1
Waiters	3	—	3
Wool graders	1	—	1
Totals	264	125	389

TABLE VIII.

Showing the cause of death of seventeen patients from July 1, 1888, to July 1, 1889.

Date.	CAUSE OF DEATH.	Nativity.	Age.	Males.	Females.
1888—December	Chronic diarrhoea	Germany	49	1	1
December	Consumption	Ireland	40	1	1
December	Gastro enteritis	Illinois	36	1	1
1889—January	General paralysis	Mexico	63	1	1
January	Old age	New York	89	1	1
February	General paralysis	South Africa	35	1	1
February	Exhaustion	Ireland	66	1	1
March	Exhaustion from epilepsy	California	25	1	1
March	Maniacal exhaustion	New York	74	1	1
March	Chronic diarrhoea	Germany	26	1	1
March	Consumption	California	26	1	1
May	Paralysis of brain	Ireland	62	1	1
May	Bright's disease	New York	50	1	1
June	Consumption	Sweden	32	1	1
June	Exhaustion from epilepsy	Arkansas	45	1	1
June	General paralysis	Corsica	49	1	1
June	Suicide by hanging	Switzerland	42	1	1

TABLE IX.

Recapitulation of causes of death of seventeen patients from July 1, 1888, to July 1, 1889.

CAUSE OF DEATH.	Males.	Females.	Total.
Bright's disease	1	1	1
Chronic diarrhoea	2	1	2
Consumption	3	1	3
Exhaustion	1	1	1
Exhaustion from epilepsy	2	1	2
Gastro enteritis	1	1	1
General paralysis	3	1	3
Maniacal exhaustion	1	1	1
Old age	1	1	1
Paralysis of brain	1	1	1
Suicide by hanging	1	1	1
Totals	17	17	17

TABLE X.

Showing articles made in sewing-room from October 23, 1888, to July 1, 1889.

ARTICLES.	Number.
Aprons.....	390
Basques.....	54
Bath towels.....	286
Bolster cases.....	2
Bed ticks.....	134
Counterpanes.....	116
Children's bibs.....	25
Cooks' caps.....	29
Chemise.....	244
Clothes bags.....	13
Children's waists.....	3
Comforts.....	3
Chest protector.....	1
Coffin pillow cases.....	8
Cambric jackets.....	20
Dress skirts.....	66
Dish towels.....	76
Drawers.....	201
Dresses.....	84
Duck jackets.....	8
Flannel skirts.....	110
Iron holders.....	4
Night dresses.....	132
Pillow cases.....	2,416
Roller towels.....	389
Sheets.....	2,370
Sunbonnets.....	27
Shrouds.....	15
Suspenders.....	117
Tablecloths.....	56
Toilet towels.....	191
Toilet napkins.....	27
Undervests.....	108

STEWARD'S REPORT.

TABLE FIRST.

Amount of articles purchased and consumed, and other expenses, for the fiscal year ending June 30, 1889.

ARTICLES.	Value.
Flour	\$1,762 00
Meat	3,364 16
Sugar	707 28
Tea	181 66
Syrup	97 81
Potatoes	446 46
Butter	1,115 02
Chicory and coffee	368 88
Lard	12 08
Fish	69 86
Poultry and eggs	182 37
Beans	136 99
Rice and cracked wheat	210 31
Corn and oatmeal	210 69
Fruit and vegetables	338 60
Salt	30 00
Vinegar	7 25
Small groceries	1,262 20
Soap	315 90
Drugs	1,021 93
Liquors and ale	36 50
Tobacco	155 76
Dry goods	4,086 53
Clothing and hats	1,252 63
Shoes and leather	500 40
Blankets	3,896 76
Furniture and crockery	4,032 54
Hardware and tinware	965 26
Spoons and cutlery	211 39
Carpeting and matting	366 45
Grain and feed	636 26
Garden tools and seeds	165 94
Lumber	2,221 34
Repairs	458 39
Brooms and brushes	148 88
Books and stationery	106 88
Gas	415 20
Fuel	5,368 29
Paints, oils, and glass	127 80
Bedding	1,083 64
Castings, iron, and pipe	262 91
Miscellaneous	662 46
Payroll	29,115 49
Expenses of administration	1,599 07
Freight and express	2 65
Ice	10 44
Telegraphing and telephoning	185 70
Grounds	2,101 00
Insurance	207 00
Advertising	832 30
Live stock	849 47
Baling hay	203 31
Carriages and wagons	925 00
Sewing machines	253 50
Harness	278 15
Horseshoeing	82 75

TABLE FIRST—Continued.

ARTICLES.	Value.
Gas fixtures.....	\$1,230 00
Range and steam tables.....	1,025 00
Swill cart.....	110 00
Clothes baskets.....	33 25
Oil cloth.....	26 55
Rubber sheets.....	215 63
Scales.....	8 50
Stepladder.....	7 50
Straw.....	43 55
Lime and cement.....	31 75
Clocks.....	133 50
Window shades.....	54 40
Car wheels.....	40 00
Stoves.....	91 81
Asbestos.....	7 87
Engine-room supplies.....	418 23
Rubber packing.....	23 62
Fertilizers.....	30 83
Window screens.....	233 00
Hose.....	723 25
Hose cart.....	65 00
Iron stair-rail.....	50 00
Farm tools and supplies.....	293 13
Hair clippers.....	13 25
Veterinary surgeon.....	21 75
Paragon reels and hose.....	2,142 00
Carpenter's tools and supplies.....	161 85
Service of stallion.....	90 00
Rent of piano.....	5 00
Total.....	\$82,994 60

TABLE SECOND.

Showing the cost of the different departments for the fiscal year ending June 30, 1889.

DEPARTMENTS.	Cost.
Kitchen and dining-rooms.....	\$8,650 00
Wards.....	1,790 46
Bakery.....	1,753 91
Laundry.....	266 44
Engine-room.....	5,136 28
Farm, garden, dairy, and stable.....	3,072 05
Expense of administration.....	1,599 07
Repairs.....	3,111 28
Miscellaneous.....	4,010 65
Drug store.....	924 53
Sewing-room.....	2,137 78
Furnishing.....	21,377 18
Center building.....	33 92
Steward's office.....	15 56
Payroll.....	29,115 49
Total.....	\$82,994 60

TABLE THIRD.

Disbursements for the fiscal year ending June 30, 1889.

FOR WHAT PURPOSE.	Amount.
Maintenance.....	\$61,617 42
Furnishing.....	20,527 71
Live stock.....	849 47
Total.....	\$82,994 60

TABLE FOURTH.

Averages for the fiscal year ending June 30, 1889.

MONTHS.	Average Number of Patients Daily ..	Average Daily Expense ..	Average Cost per Capita per Day ..	Average Cost per Capita per Month ..
1888—November.....	102	\$170 23	\$1 67	\$50 06
December.....	274	200 43	73 $\frac{1}{10}$	22 68
1889—January.....	270	214 08	79 $\frac{3}{10}$	24 58
February.....	310	236 78	76 $\frac{7}{10}$	21 39
March.....	363	222 01	61 $\frac{1}{10}$	18 96
April.....	363	225 40	62	18 63
May.....	363	213 86	58 $\frac{8}{10}$	18 26
June.....	364	326 06	89 $\frac{1}{10}$	26 87
Yearly averages.....	301	\$226 10	\$0 83 $\frac{4}{10}$	\$25 18

TABLE FIFTH.

Products of the farm, garden, and dairy, for the fiscal year ending June 30, 1889.

ARTICLES.	Amount.
Asparagus, pounds.....	104
Beets, pounds.....	42
String beans, pounds.....	323
Butter, pounds.....	540
Cabbage, pounds.....	30
Cucumbers, dozens.....	6½
Chickens, dozens.....	12½
Ducks, dozens.....	5½
Eggs, dozens.....	619½
Cauliflower, pounds.....	35
Lettuce, pounds.....	538
Milk, gallons.....	7,159½
Onions, pounds.....	185
Green pease, pounds.....	239
Radishes, pounds.....	269
Squash, pounds.....	50
Strawberries, pounds.....	69½
Turnips, pounds.....	931
Pears, pounds.....	8,440
Steers killed.....	1
Calves killed.....	1
Hogs sold, 594 pounds.....	\$41 58
Calves sold, 1,061 pounds.....	\$83 38
Cows sold, 2,817 pounds.....	\$183 10
Hay, tons.....	203

REPORT OF THE MEDICAL DIRECTOR

FOR THE YEAR ENDING JUNE 30, 1890.

To the honorable Board of Trustees of the State Asylum at Agnews:

GENTLEMEN: I herewith submit to you my annual report for the year ending June 30, 1890.

ANNUAL SUMMARY.

The following summary exhibits the number of patients in the asylum June 30, 1889; number admitted, number under care and treatment, number discharged, eloped, and died during the year, and the number remaining in the asylum June 30, 1890:

FROM JUNE 30, 1889, TO JUNE 30, 1890.	Males.	Females.	Total.
Number of patients June 30, 1889	243	122	365
Number admitted during the year	202	87	289
Whole number under care and treatment	445	209	654
Number discharged recovered	32	12	44
Number discharged improved	16	4	20
Number discharged unimproved	5	2	7
Number discharged not insane	1	—	1
Number died	42	12	54
Number eloped	1	—	1
Discharged, died, and eloped	97	30	127
Number remaining June 30, 1890	348	179	527

TABLE I.

Showing the counties from which two hundred and eighty-nine patients were admitted from July 1, 1889, to July 1, 1890.

COUNTIES.	Males.	Females.	Total.
Alameda	13	8	21
Monterey	6	—	6
Mendocino	5	1	6
Placer	—	1	1
Santa Cruz	5	2	7
Santa Clara	16	17	33
San Francisco	143	51	194
San Benito	3	—	3
Shasta	—	1	1
Sacramento	1	1	2
San Mateo	5	2	7
San Luis Obispo	4	3	7
San Joaquin	1	—	1
Totals	202	87	289

TABLE II.

Showing the nativity of two hundred and eighty-nine patients admitted from July 1, 1889, to July 1, 1890.

NATIVITY.	Males.	Females.	Total.
<i>United States.</i>			
California	19	11	30
Connecticut	1		1
Iowa		1	1
Illinois	4	3	7
Indiana	1	2	3
Kentucky	1	1	2
Minnesota		1	1
Missouri	2		2
Maine		2	2
Massachusetts	2		2
Maryland	3		3
Nevada	1	1	2
New York	7	5	12
New Hampshire		2	2
Nebraska	1		1
Ohio	4	1	5
Oregon	1	1	2
Pennsylvania	1	2	3
Texas	1	1	2
Tennessee	2		2
Virginia	2		2
Vermont	1		1
West Virginia		1	1
Totals	54	35	89
<i>Foreign Countries.</i>			
Austria	10		10
Australia	1		1
Azore Islands	1		1
Belgium	1		1
Canada	5	1	6
Cape Britain		1	1
China	5	1	6
Denmark	3		3
England	13	2	15
France	3	6	9
Finland	3		3
Germany	25	8	33
Greece	1		1
Holland	2		2
Isle of Malta	1		1
Italy	7	1	8
Ireland	25	21	46
Japan	3		3
Mexico	1		1
Morocco	1		1
Nova Scotia	3	1	4
Norway	2	1	3
Poland	1	1	2
Russia	2		2
Scotland	3	1	4
Switzerland	3	2	5
Sweden	3	1	4
Society Islands	1		1
Unknown	19	4	23
Totals	148	52	200

RECAPITULATION.

NATIVITY.	Males.	Females.	Total.
United States.....	54	35	89
Foreign countries	129	48	177
Unknown	19	4	23
Totals	202	87	289

TABLE III.

Showing the ages of two hundred and eighty-nine patients at the time of their admission into the Asylum, from July 1, 1889, to July 1, 1890.

AGES.	Males.	Females.	Total.
Between 10 and 20 years.....	8	2	10
Between 20 and 30 years.....	45	23	68
Between 30 and 40 years.....	55	24	79
Between 40 and 50 years.....	47	21	68
Between 50 and 60 years.....	24	4	28
Between 60 and 70 years.....	9	7	16
Between 70 and 80 years.....	2	5	7
Between 80 and 90 years.....	1		1
Unknown	11	1	12
Totals	202	87	289

TABLE IV.

Showing the supposed causes of insanity in two hundred and eighty-nine patients, as stated in commitments, from July 1, 1889, to July 1, 1890.

SUPPOSED CAUSES.	Males.	Females.	Total.
Amenorrhœa		3	3
Anxiety over sick child		1	1
Business reverses	3		3
Business worries	1		1
Brooding over trouble	1		1
Congestion of brain	1		1
Cocaine	1		1
Child birth		1	1
Death of wife	1		1
Death of husband		1	1
Disease of brain		1	1
Disorders of menopause		3	3
Disappointment in love		1	1
Domestic trouble		1	1
Epilepsy	7	2	9
Family trouble	3	1	4
Hereditary	9	1	10
Hemorrhage of brain	1		1
Hysteria		1	1
Intemperance	28	7	35
Injury on head	8	1	9
Injustice of husband		1	1
Loss of money	2		2
Loss of property	1		1
Lactation		1	1
Masturbation	22	1	23
Menstrual trouble		1	1
Mental worry		1	1
Overexertion and heat	1		1
Old age		1	1
Overtaxed brain		1	1
Political excitement	1		1
Puerperal condition		1	1
Religion	6	3	9
Softening of brain	3	1	4
Senility	1		1
Sunstroke	1		1
Spiritualism	1	1	2
Starvation	1		1
Traumatic	1		1
Troubles	1		1
The Iron Molders' strike	1		1
Typhoid fever		2	2
Typhus fever		1	1
Unknown	90	41	131
Use of morphine	3		3
Use of opium	2		2
Uterine trouble		3	3
Want of employment		1	1
Want and irregular life		1	1
Totals	202	87	289

TABLE V.

Showing the class of insanity of two hundred and eighty-nine patients, as stated in commitments, from July 1, 1889, to July 1, 1890.

CLASS.	Males.	Females.	Total.
Dementia.....	18	2	20
General.....	1	2	3
Mania.....	92	45	137
Melancholia.....	26	12	38
Monomania.....	4	6	10
Puerperal mania.....		2	2
Senile dementia.....		2	2
Unknown.....	61	16	77
Totals.....	202	87	289

TABLE VI.

Showing the civil condition of two hundred and eighty-nine patients admitted from July 1, 1889, to July 1, 1890.

CIVIL CONDITION.	Males.	Females.	Total.
Divorced.....		1	1
Married.....	54	42	96
Single.....	122	30	152
Unknown.....	17	2	19
Widows.....		12	12
Widowers.....	9		9
Totals.....	202	87	289

TABLE VII.

Showing the occupation of two hundred and eighty-nine patients admitted from July 1, 1889, to July 1, 1890.

OCCUPATION.	Males.	Females.	Total.
Artists.....		1	1
Brass finishers.....	1		1
Brewers.....	1		1
Barbers.....	2		2
Blacksmiths.....	2		2
Bookkeepers.....	3		3
Boatswain.....	1		1
Boxmakers.....	2		2
Cabinetmakers.....	1		1
Carpenters.....	11		11
Cider business.....	1		1
Cooks.....	6		6
Confectioners.....	1		1
Cigarmakers.....	2		2
Clerks.....	1		1
Coffee saloons.....	1		1
Coopers.....	2		2
Clairvoyants.....		1	1
Domestics.....		9	9
Dressmakers.....		3	3
Dress cutters.....	1		1
Drummers.....	1		1

TABLE VII—Continued.

OCCUPATION.	Males.	Females.	Total.
Dentists	2	.....	2
Engineers	1	.....	1
Fireman on steamer	1	.....	1
Fresco painters	1	.....	1
Fishermen	2	.....	2
Farmers	6	.....	6
Gardeners	4	.....	4
Housework .....	.....	34	34
Hatters	1	.....	1
Hotelkeepers	1	.....	1
Hostlers	2	.....	2
Laundrywomen .....	.....	1	1
Locksmiths	1	.....	1
Laundrymen	2	.....	2
Laborers	55	1	56
Molders	2	.....	2
Miners	3	.....	3
Mechanics	2	.....	2
Marble cutters	1	.....	1
Merchants	2	.....	2
Music teachers .....	.....	2	2
Nurse .....	.....	1	1
No occupation	8	7	15
Orchardists	1	.....	1
Polishers	1	.....	1
Poultry dealers	1	.....	1
Printers	1	.....	1
Physicians	2	.....	2
Painters	2	.....	2
Peddlers	2	.....	2
Sailors	6	.....	6
Saloonkeepers	4	.....	4
Sea captains	1	.....	1
Servants	1	4	5
Salesmen	1	.....	1
Shoemakers	3	.....	3
Stablemen	2	.....	2
Sawyers	1	.....	1
Sheepherders	1	.....	1
School teachers .....	.....	3	3
Tailoress .....	.....	1	1
Tinsmiths	1	.....	1
Tailors	1	.....	1
Teamsters	5	.....	5
Truckman	1	.....	1
Unknown	21	19	40
Upholsters	1	.....	1
Winemakers	1	.....	1
Waiters	3	.....	3
Woodchoppers	1	.....	1
Totals	202	87	289

TABLE VIII.

Showing the cause of death of fifty-four patients from July 1, 1889, to July 1, 1890.

Month.	CAUSE OF DEATH.	Nativity.	Age.	Male	Female
July, 1889	Marasmus and exhaustion	Sweden	26	1	
July, 1889	Apoplexy	Norway	46	1	
July, 1889	Exhaustion	Delaware	73	1	
September, 1889	Consumption	Unknown		1	
September, 1889	Old age	Germany	72		1
September, 1889	Maniacal exhaustion	United States	39	1	
October, 1889	Heart disease	Texas	34	1	
November, 1889	Epilepsy	Germany	15	1	
November, 1889	Epilepsy and consumption	Germany	43	1	
November, 1889	General paralysis	Indiana	50	1	
November, 1889	Exhaustion	Russia	42	1	
November, 1889	Consumption	Mexico	36	1	
November, 1889	Epilepsy and exhaustion	Ireland	24	1	
December, 1889	Exhaustion from epilepsy	California	39	1	
December, 1889	Paralysis	Illinois	18		1
December, 1889	Apoplexy	Germany	47	1	
December, 1889	Chronic diarrhœa	Unknown		1	
December, 1889	Exhaustion	Texas	26	1	
December, 1889	Exhaustion	Unknown	65	1	
December, 1889	Exhaustion	Germany	46		1
December, 1889	Exhaustion	France	18		1
December, 1889	Consumption	Germany	21	1	
January, 1890	Heart disease	England	39		1
January, 1890	Exhaustion with erysipelas	Prussia	67	1	
January, 1890	Organic disease of brain	Holland	49	1	
January, 1890	Organic disease of brain	Prussia	78	1	
January, 1890	Pneumonia	Finland	30	1	
January, 1890	Exhaustion	Ireland	63		1
January, 1890	Organic disease of heart	Isle of Malta	50	1	
January, 1890	Congestion of lungs	Nevada	36	1	
January, 1890	Epilepsy and exhaustion	Kentucky	68	1	
January, 1890	Exhaustion	Illinois	80	1	
February, 1890	Exhaustion	New York	57	1	
February, 1890	Apoplexy	Missouri	64	1	
February, 1890	Bright's disease	Germany	31		1
February, 1890	Cancer	Germany	60	1	
March, 1890	Exhaustion	France	54	1	
March, 1890	Pneumonia	France	33		1
March, 1890	Maniacal exhaustion	Unknown	38		1
March, 1890	Consumption	California	14	1	
March, 1890	Infirmities of age	Pennsylvania	75		1
April, 1890	Maniacal exhaustion	Germany	40	1	
April, 1890	Exhaustion	Ireland	53		1
April, 1890	Acute pneumonia	Canada	35	1	
April, 1890	Consumption	China	39	1	
April, 1890	Consumption	Denmark	21	1	
May, 1890	Organic disease of brain	Azores	53	1	
May, 1890	Consumption	California	25	1	
May, 1890	Epilepsy	Virginia	60	1	
May, 1890	Exhaustion	Vermont	75	1	
May, 1890	Epilepsy	New York	51	1	
June, 1890	Chronic diarrhœa	New York	39	1	
June, 1890	Paralysis	United States	38		1
June, 1890	Consumption	Ireland	50	1	

TABLE IX.

Recapitulation of the causes of death of fifty-four patients from July 1, 1889, to July 1, 1890.

CAUSE OF DEATH.	Males.	Females.	Total.
Apoplexy	3		3
Acute pneumonia	1		1
Bright's disease		1	1
Consumption	8		8
Chronic diarrhœa	2		2
Congestion of lungs	1		1
Cancer	1		1
Exhaustion	8	4	12
Exhaustion from epilepsy	1		1
Exhaustion with erysipelas	1		1
Epilepsy	3		3
Epilepsy and consumption	1		1
Epilepsy and exhaustion	2		2
General paralysis	1		1
Heart disease	1	1	2
Infirmities of age		1	1
Marasmus and exhaustion	1		1
Maniacal exhaustion	2	1	3
Old age		1	1
Organic disease of brain	3		3
Organic disease of heart	1		1
Paralysis		2	2
Pneumonia	1	1	2
Totals	42	12	54

TABLE X.

Showing articles made in the sewing-room from July 1, 1889, to July 1, 1890.

ARTICLES.	Number.
Aprons	371
Ankle straps	12
Basques	85
Bath towels	542
Counterpanes	212
Chemise	157
Clothespin bags	3
Carriage covers	3
Coffin pillow cases	22
Canvas mats	12
Cambric jackets	50
Carpenters' aprons	4
Children's dresses	2
Drawers	121
Dresses	117
Duck jackets	25
Dress skirts	75
Dish towels	167
Drop cloths for painter	2
Flannel skirts	108
Knee caps	2
Mattress covers	256
Night dresses	177
Night caps	2
Napkins	67
Pillow cases	646
Pillow ticks	501
Pillow shams	72
Roller towels	392
Sheets	1,147
Shrouds	80
Straw ticks	95
Suspenders	58
Skirts	73
Sacks for making coffee	12
Sunbonnets	48
Table cloths	5
Underwaists	3
Undervests	226
Waterproof capes	18
Waiters' jackets	2
White skirts	147
Window curtains	28

STEWARD'S REPORT.

TABLE FIRST.

Amount of articles purchased and consumed, and other expenses, for the fiscal year ending June 30, 1890.

ARTICLES.	Value.
Flour	\$3,623 32
Meat	5,115 29
Sugar	1,365 07
Tea	323 58
Syrup	207 42
Potatoes	967 99
Butter	2,493 98
Chicory and coffee	763 14
Lard	78 87
Fish	237 45
Poultry and eggs	738 46
Beans	236 65
Rice and cracked wheat	439 96
Corn and oatmeal	379 50
Fruit	115 20
Salt	48 47
Vinegar	16 34
Small groceries	2,246 59
Soap	404 52
Drugs	369 29
Liquors and ale	25 00
Tobacco	534 20
Dry goods	2,033 76
Clothing and hats	1,293 54
Shoes and leather	880 49
Blankets	1,505 68
Furniture and crockery	2,001 64
Hardware and tinware	689 78
Spoons and cutlery	87 71
Carpeting and matting	154 37
Grain and feed	821 09
Garden tools and seeds	204 04
Lumber	2,113 69
Repairs	464 21
Brooms and brushes	226 84
Books and stationery	77 30
Gas	831 25
Fuel	7,495 89
Paints, oils, and glass	899 41
Bedding	259 25
Castings, iron, and pipe	460 75
Miscellaneous	790 97
Payroll	41,553 10
Returned escapes	13 70
Discharged patients	58 85
Expense of administration	2,448 54
Freight and express	85 46
Ice	323 55
Telegraphing and telephoning	89 90
Grounds	1,540 71
Insurance	2,128 90
Advertising	366 00
Live stock	2,406 15
Baling hay	306 60
Carriages and wagons	225 00
Harness	84 40

TABLE FIRST—Continued.

ARTICLES.	Value.
Horseshoeing.....	\$177 60
Range and steam tables.....	40 60
Clothes baskets.....	5 50
Oil cloth.....	22 90
Scales.....	66 00
Stepladders.....	33 60
Straw.....	28 20
Lime and cement.....	50 00
Window shades.....	123 00
Stoves.....	142 12
Engine-room supplies.....	377 05
Rubber packing.....	11 70
Hose.....	36 55
Farm tools and supplies.....	414 65
Veterinary surgeon.....	23 50
Carpenter's tools and supplies.....	79 10
Service of stallion.....	75 00
Vegetables.....	153 10
Grommets.....	34 65
Rent of piano.....	60 00
Restraints.....	83 45
Refrigerator.....	250 00
Moss.....	546 12
Elevator.....	50 50
Railroad track.....	500 00
Tallow.....	52 71
Surveying.....	70 00
Caustic soda.....	41 10
Water cart.....	217 50
Total.....	\$99,418 11

TABLE SECOND.

Showing the cost of the different departments for the fiscal year ending June 30, 1890.

DEPARTMENTS.	Cost.
Kitchen and dining-rooms.....	\$15,049 02
Wards.....	5,792 44
Bakery.....	4,152 43
Laundry.....	544 06
Engine-room.....	7,157 23
Farm, garden, dairy, and stable.....	4,115 62
Expense of administration.....	2,557 39
Repairs.....	2,403 33
Miscellaneous.....	6,587 36
Drug store.....	402 00
Sewing-room.....	1,913 23
Furnishing.....	6,915 38
Center building.....	247 82
Steward's office.....	27 70
Payroll.....	41,553 10
Total.....	\$99,418 11

TABLE THIRD.

Disbursements for the fiscal year ending June 30, 1890.

FOR WHAT PURPOSE.	Amount.
Maintenance	\$92,502 73
Furnishing	4,509 23
Live stock	2,406 15
Total	\$99,418 11

TABLE FOURTH.

Averages for the fiscal year ending June 30, 1890.

MONTHS.	Average Number of Patients Daily	Average Daily Ex- pense	Average Cost per Capita per Day	Average Cost per Capita per Month
1889—July	369	\$303 68	\$0 82 $\frac{3}{10}$	\$25 51
August	377	212 85	56 $\frac{4}{10}$	17 50
September	398	231 61	58 $\frac{2}{10}$	17 46
October	433	258 36	59 $\frac{1}{10}$	18 50
November	459	265 06	57 $\frac{1}{10}$	17 32
December	478	242 98	50 $\frac{8}{10}$	15 76
1890—January	485	264 49	54 $\frac{5}{10}$	16 90
February	487	256 13	52 $\frac{6}{10}$	14 73
March	490	251 85	51 $\frac{4}{10}$	15 93
April	495	261 04	52 $\frac{7}{10}$	15 82
May	502	244 89	48 $\frac{8}{10}$	15 12
June	515	247 02	48	14 39
Yearly averages	457	\$253 33	\$0 56 $\frac{1}{10}$	\$17 08

TABLE FIFTH.

Products of the farm, garden, and dairy, for the fiscal year ending June 30, 1890.

ARTICLES.	Amount.
Asparagus, pounds.....	133
Beets, pounds.....	2,270
String beans, pounds.....	3,434
Cabbage, pounds.....	5,532
Cucumbers, dozens.....	616
Cauliflower, pounds.....	2,246
Carrots, pounds.....	2,318
Green corn, dozens.....	570
Celery, pounds.....	1,478
Chickens, dozens.....	13
Eggs, dozens.....	533
Grapes, pounds.....	480
Lettuce, pounds.....	1,103
Melons, dozens.....	95
Milk, gallons.....	14,987
Onions, pounds.....	3,453
Parsnips, pounds.....	87
Green pease, pounds.....	2,765
Pears, pounds.....	8,799
Radishes, pounds.....	170
Squash, pounds.....	862
Strawberries, pounds.....	281
Turnips, pounds.....	3,006
Tomatoes, pounds.....	8,244
Hogs sold, 3,888 pounds.....	\$202 15
Calves killed.....	12
Hay, tons.....	206



FIFTH ANNUAL REPORT

OF THE

BOARD OF TRUSTEES OF THE CALIFORNIA HOME

FOR THE

Care and Training of Feeble-Minded Children.

FOR THE YEAR 1889.



SACRAMENTO:

STATE OFFICE : : : J. D. YOUNG, SUPT. STATE PRINTING.
1889.

REPORT.

CALIFORNIA HOME FOR THE
CARE AND TRAINING OF FEEBLE-MINDED CHILDREN, }
SANTA CLARA, November 1, 1889. }

To his Excellency GOVERNOR WATERMAN, *Governor of the State of California:*

In compliance with and agreeably to the laws of the State of California, we respectfully herewith submit to you our annual report as Trustees of said institution.

For a detailed statement and all the necessary information required by statute, we respectfully refer you to the report of our Superintendent, Dr. A. E. Osborne, which is annexed hereto and made part hereof.

The health of the inmates during the past year has been good, and considerable progress made with many in their physical, mental, and educational condition. The number of inmates in the institution on the thirtieth day of June, 1889, being the end of the fiscal year, was one hundred and fourteen, and the number therein on the first day of November, 1889, was one hundred and eighteen, divided as follows: Boys, sixty-seven; girls, fifty-one.

As we have heretofore stated in our former reports, our capacity for accommodating those at present in the institution is very limited, and we are compelled, for want of room, to deny admission to the many applicants now seeking to get in, many of whom are urgent and necessary cases, and who should or ought to be provided for, but for want of room we are unable at present to provide accommodations for them. If we had to-day room sufficient, we could have in the institution over two hundred and fifty children. It is true, nothing can be done till the new buildings, on the new location lately selected by the Commission under the last legislative Act in reference to providing a permanent site for this institution, are built and completed. The Legislature of our State, at its last session, very wisely provided for an appropriation for a new site for this institution, under an Act "To provide a permanent site for the California Home for the Care and Training of Feeble-Minded Children," and to erect suitable buildings thereon. The Act provided for the selection and appointment, by your Excellency, of two citizens, who, with this Board of Trustees, were to form a Commission, whose duties were the selection and purchase of a suitable site or property for the future Home of this institution. Under this Act, your Excellency made two very wise appointments in the persons of Captain Oliver Eldridge and George W. Gibbs, Esq., citizens of San Francisco.

The primitive proceedings had and taken under this Commission were, when organized, to elect Mrs. Kate B. Lathrop President, and B. F. Le Warne Secretary. Subsequently notices for publication were prepared, wherein was fully detailed what was required to be specified by those having lands for sale, and to put in their bids to the Commission on a given day in said notice named. These notices were published in many of the newspapers in the different counties of the State, and the result was

that the Commission received one hundred and thirty-seven applications for sales of lands in the various counties of the State. Of these bids more than one half were rejected by the Commission as unworthy of considering, on the ground that they did not come up to the requirements of the law in many particulars. Some had less acreage than required, whilst others bid for prices far beyond our means allowed by law, and others were entirely too remote from travel communications, and devoid of the requirements set forth in our notices. Of the remaining bidders, which were considered, the Commission personally visited and inspected the most of them well and thoroughly, prompted and guided solely without any personal preferences or feelings of favor to any, but looking solely and only for the good and welfare of those children under our care, whose future and permanent home was to be wherever, in our wisdom, we may locate, and having, further, the interest of the people of the State in view, whose Trustees we were for that purpose. We finally selected and bargained for, with your Excellency's approval, what we considered the best offer made to us, and that is what is known as the William McPherson Hill rancho, or farm, situated at or near the town of Glen Ellen, Sonoma County, containing some one thousand six hundred and sixty acres of land, and for the low sum or price of \$50,000. It is needless for us to state that this place possesses all the requirements needed for an institution of this kind; for embraced within it is accessibility, climate, soil, timber, water, and, in fact, everything that is necessary for the purposes, and is well known to many of the people of our State as possessing all the merits we attribute to it.

As before stated, we have only at this time bargained for the purchase of the place at the price above named, the deed of the same being signed and in escrow with Tallant & Co., of San Francisco, to be taken by the State as soon as the purchase money is allowed by the Board of State Examiners and the Controller issues his warrant therefor. It is understood that if the deed pass to the State, that possession will be given by the first day of January next.

We hope in our next report to be able to report to you what progress we may make towards the erection of buildings on this property. We are having plans prepared of what, in our judgment, will be necessary for buildings for an institution like this, which no doubt will cost far in excess of the appropriation allowed for the purposes; but it is the desire and conclusion of the Trustees to proceed only so far as the appropriation allowed will carry them, and looking to the future Legislature for sufficient means to complete and furnish the same. These plans will all be submitted to the proper officers created by law, for their approval, before adoption by us.

We would respectfully call your Excellency's attention to that part of our Superintendent's report showing the expenses of supporting, maintaining, as well as educating the inmates per capita in an institution like this, given as they are in three different headings, and from which you can readily draw your conclusions and arrive at the proper expense of such in contra to like support and maintenance of inmates in other State institutions of a custodian character. It is to be observed that the expense for labor in an institution like this is far above that in other institutions of like character, arising from the fact that children or wards like those in an institution like this are almost helpless, requiring as they do a larger staff of attendants to look after their care, wants, and education.

In conclusion, we desire to express here our thanks to Captain Oliver Eldridge and George W. Gibbs, Esq., the Commissioners coöperating with us in this work, attending as they did well and faithfully all the meetings

of the Commission, and at all times cheerfully and willingly giving valuable and able counsel in our deliberations whenever requested. We also desire to thank your Excellency for the uniform kindness exhibited and the assistance rendered to us and the Commission in all our movements and undertakings so far in this most humane and charitable work.

Respectfully submitted.

MRS. KATHERINE B. LATHROP, President.
WILLIAM HARNEY.
CHAS. A. MURDOCK.
MRS. JULIA M. JUDAH.
J. W. FINDLAY.

REPORT OF THE SUPERINTENDENT.

SANTA CLARA, CAL., November 1, 1889.

To the Board of Trustees of the California Home for the Care and Training of Feeble-Minded Children:

MESDAMES AND SIRs: I herewith submit for your consideration, as required by the statutes of the State, my report of the operations of this institution for the fiscal year ending June 30, 1889. As another annual report will be made by the Superintendent to be incorporated with your biennial report to the Governor next year, before the convening of the Legislature, I have here omitted any special treatment of our work from a professional standpoint, believing that my comprehensive tables and statistics will be found sufficient to meet the desire of your honorable body at this time, and that the more exhaustive consideration of the medical aspect of our specialty will appear more apropos next year.

However, in addition to my tables, as presented to you in my semi-annual report of June 30, 1889, and herein quoted in full, I beg to add the following information:

The average monthly population of inmates for the year was one hundred and five and five sixths.

The average monthly expenditure for maintenance, including salaries, repairs, and the purchase of stock and fixtures, was \$2,222 16.

The average per capita monthly cost was therefore \$20 96; and the average daily per capita cost, 68 cents. If we include in the population the officers and all persons connected with the institution on pay, we have the daily per capita cost reduced to $54\frac{3}{4}$ cents, and the monthly average per capita, \$16 43, showing a decrease in cost from previous years per capita per diem of $8\frac{1}{4}$ cents, with an increase of 20 per cent in our population.

In considering the per capita expense of this institution over other State institutions, one must not lose sight of the educational feature of the work. A larger staff must be maintained than is necessary for purely custodial care, in order that the inmates may be properly drilled, schooled, and trained. At the lowest calculation possible the school has cost, in salaries and supplies (and this does not include the salaries of such attendants as are doing training work as well as care of inmates), \$2,000 during the year. If this amount was deducted from the above figures we would have the monthly per capita cost, including only inmates, \$19 45 $\frac{1}{2}$, and the daily per capita 64 $\frac{3}{4}$ cents.

The per capita cost of maintenance alone, including expenses for living, clothing, etc., was only 21 cents. If we include feed for stock (\$1,112 68) and fuel (\$926 09), the per capita cost was 26 cents per day. If we include the salaries of all persons connected with the institution (\$12,353 94), the cost was 58 cents per day. The school salaries and supplies, however, amounted to \$2,000 per annum. If this be deducted, we have the cost per diem for care, etc., as 53 cents. It has been supposed that our cost per diem was high, but a comparison of our figures does not prove it, and it will not always do to take, without question or allowance, the per capita offered by other institutions in comparison, for the reason that there are

not probably two institutions whose tables are prepared in exactly the same way. It is by a comparison of the same classes of expenses that we can accurately demonstrate relative per capita expenses.

The following tables, showing daily costs, may be of interest, to wit:

Table 1.—Whole population for food and clothing, \$22 27, or 16 $\frac{2}{3}$ cents per head.

<i>Table 2.</i> —General expenditures per day, exclusive of food, clothing, and salaries, as follows:	
Feed for stock.....	\$3 05
Fuel (11 $\frac{2}{3}$ cents per head).....	2 53
Administrative Department—expressage, postage, telegraphing, stationery, and school supplies.....	1 33
Traveling expenses (Trustees and Superintendent).....	97
Light (including gas used in laundry for heating purposes, mangle, etc.).....	90
Laundry expenses and repairs.....	1 06
Repairs and ordinary expense in and about the building, painting, glazing, and alterations.....	2 27
Farm expenses and purchase of stock.....	2 24
Furniture, hardware, and engine supplies.....	1 53
Insurance.....	1 00
Total.....	\$16 88

Table 3.—Salaries per day, as per the several departments, to wit:

School purposes.....	\$5 26
Farm and grounds.....	1 80
Laundry and water.....	3 45
Household and kitchen.....	3 78
Administration (including Executive, day and night attendants, office, etc.).....	19 56
Total.....	\$33 85
Aggregate per diem:	
Food and clothing.....	\$22 27
General expenditure.....	16 88
Salaries.....	33 85
Per day.....	\$73 00

Farm Account.

Paid for feed for stock.....	\$1,112 68
Paid for fence lumber, repairs, implements, and fixtures.....	598 15
Paid for live stock.....	219 50
Total.....	\$1,930 33

Received from Farm; Products, etc.

Milk, 23,049 quarts, value 7 cents.....	\$1,613 43
Eggs, 2,059, value 2 $\frac{1}{2}$ cents.....	51 46
Pork, 1,163 pounds, value 10 cents.....	116 30
Veal, 85 pounds, value 10 cents.....	8 50
Chickens, 50, value 50 cents.....	25 00
Tomatoes, 109 boxes, value 50 cents.....	54 50
Potatoes, 4,771 pounds, value 1 cent.....	47 71
Corn, 876 ears, value 1 cent.....	8 76
Squash, 3,452, value 3 cents.....	103 56
Cabbage, 191 heads, value 5 cents.....	9 55
Cucumbers, 2,134, value 1 cent.....	21 34
Melons, 168, value 12 $\frac{1}{2}$ cents.....	21 00
Radishes, 162 pounds, value 4 cents.....	6 48
Peas, 305 pounds, value 5 cents.....	15 25
Onions, 325 pounds, value 1 cent.....	3 25
Hay, 56 tons, value \$12.....	672 00
	\$2,778 09
Deduct from this expense account, as above.....	1,930 33
Leaving balance in favor of farm.....	\$847 76

In the above, no account has been taken of lettuce, young onions, beans, beets, etc.—a very considerable quantity of which was raised and consumed by the Home. Neither is any account taken of the young stock

(heifers and hogs) raised during the year. I estimate that the proper balance in favor of our farm should be \$1,000.

PRESENT POPULATION.

The present population (November 1, 1889) of the institution is: In-mates—Boys, sixty-seven; girls, fifty-one. Total, one hundred and eighteen. Their distribution by counties is as follows:

Alameda	17	San Diego	2
Butte	1	San Francisco	47
Calaveras	1	San Joaquin	1
Contra Costa	1	San Mateo	2
Fresno	1	Santa Barbara	2
Humboldt	2	Santa Clara	5
Lake	1	Santa Cruz	3
Los Angeles	5	Sonoma	2
Marin	1	Sutter	1
Monterey	1	Tulare	1
Napa	3	Ventura	4
Placer	1	Yolo	3
Sacramento	3	Hawaiian Islands	1
San Bernardino	4		
San Benito	2	Total	118

Respectfully submitted.

A. E. OSBORNE, M.D.,
Superintendent.

FINANCIAL REPORT.

SANTA CLARA, CALIFORNIA, July 31, 1889.

To the Board of Trustees California Home for Feeble-Minded Children:

I have the honor to submit herewith my semi-annual report of the financial transactions of this Institution. Included therewith will be found comprehensive tables covering the same transactions for the whole fiscal year ending June 30, 1889. These are made at this time for the purpose of enabling me to report the balances on my books, and to facilitate the auditing and expediting of my accounts with the Board of Trustees and the State, in complete adjustment of the transactions under the various appropriations made for the two years concluding with the fortieth fiscal year as above.

The following recapitulation of disbursements for the thirty-ninth and fortieth fiscal years I quote from my report to your Board for the month of June, 1889, which same is now on file:

For Maintenance.

Total disbursement for maintenance for the thirty-ninth fiscal year, ending June 30, 1888	\$25,342 39
Total disbursement for maintenance for the fortieth fiscal year, ending June 30, 1889	26,666 01
	\$52,008 40
Add deficiency claims (thirty-eighth fiscal year)	10,921 34
	\$62,929 74
Balance lapsing to the State	170 26
Amount of appropriation	\$63,100 00

For Improvements.

Disbursements—thirty-ninth fiscal year.....	\$17,269 18
Disbursements—fortieth fiscal year.....	4,600 95
Total.....	\$21,870 13
Balance unexpended and lapsing to State.....	3,129 87
The total appropriation being.....	\$25,000 00
Unexpended balances being—From maintenance appropriation.....	\$170 26
From maintenance (deficiency reserve).....	10,921 34
From improvement appropriation.....	3,129 87
Total.....	\$14,221 47
The average monthly expenses for maintenance for the thirty-ninth fiscal year was.....	\$2,127 42½
The average monthly expenses for maintenance for the fortieth fiscal year was.....	2,222 16½
Average monthly excess for fortieth fiscal year.....	\$94 74½
The average monthly expense under improvement appropriation was for the thirty-ninth fiscal year.....	\$1,439 09½
The average monthly expense under improvement appropriation for the fortieth fiscal year.....	383 41½

Semi-annual Statistics.

Total expenses for maintenance half year ending December 31, 1888.....	\$12,474 17
Total expenses for maintenance half year ending June 30, 1889.....	14,191 84
[See schedule A].....	\$26,666 01
Total expenses from appropriation for improvements for half fiscal year ending December 31, 1888.....	\$2,165 26
Total expenses from appropriation for improvements for half fiscal year ending June 30, 1889.....	2,435 69

Movement of Population.

Population of inmates, January 1, 1889.....	106
Population of staff (including all persons on payroll).....	26
Total.....	132
Admissions, January 1, 1889, to June 30, 1889.....	9
Discharged, January 1, 1889, to June 30, 1889.....	1
Total population inmates, June 30, 1889.....	114
Total population staff, June 30, 1889.....	28
Gross population.....	142
Gross excess of population over January 1, 1889.....	10
Gross excess of population for year over June 30, 1888.....	21
Applications, July 1, 1888, to January 1, 1889, 35; admitted, 11; remaining... ..	24
Applications, January 1, 1889, to June 30, 1889, 42; admitted, 4; remaining... ..	38
Total for the year..... 77; admitted, 15; remaining... ..	62
Inmates, June 30, 1888:	
Males.....	50
Females.....	43
Total.....	93
Inmates, June 30, 1889:	
Males.....	66
Females.....	48
Total.....	114

Following will be found the tables in full referred to. Also exhibit of Christmas Fund account, showing a cash balance on hand of \$9 60.

All of which is respectfully submitted.

(Signed:)

A. E. OSBORNE, M.D.,
Superintendent.

SCHEDULE A.

Receipts from the State Controller on Account of the Appropriation for Maintenance for the Fortieth Fiscal Year.

1888—August 16—Received coin from the State Controller	\$1,797 80
October 1—Received warrants 3908 to 3947 from the State Controller	1,654 20
October 15—Received warrants 3757 to 3805 from the State Controller	2,049 81
Received warrants 3608 to 3609 from the State Controller	90 30
November 19—Received warrants 5133 to 5183 from the State Controller	2,204 14
December 14—Received warrants 6496 to 6590 from the State Controller	2,215 30
1889—January 26—Received warrant 8966 from the State Controller	2,552 62
February 21—Received coin from the State Controller	2,639 86
March 28—Received coin from the State Controller	2,268 72
April 17—Received coin from the State Controller	1,960 57
June 8—Received coin from the State Controller	2,145 47
June 21—Received coin from the State Controller	2,078 16
July 16—Received coin from the State Controller	3,099 06

\$26,666 01

Payments made from the State Appropriation for Maintenance for the Fortieth Fiscal Year.

1888—August 17—Payroll, month of July, 1888	\$953 17
S. Foster & Co., supplies	258 28
John Sallows, cutting and baling hay	127 13
Best & Williams, meats	97 44
Dr. A. E. Osborne, Superintendent, contingent expenses	49 21
John Widney, supplies	46 68
S. Oberdeener, drugs and medicines	30 90
R. Howes, fish and poultry	22 35
R. H. Quincy, ice	21 85
J. Cereghino, vegetables and fruit	20 05
R. A. Swain & Co., crockery	18 05
W. T. Hyde, fruit	15 25
J. M. Raney, livery hire	14 00
E. H. Guppy & Son, stationery	13 44
"Alta California," advertising	6 00
E. S. Bradlee, piano repairs and tuning	5 00
Santa Clara "Journal," advertising	3 00
Dunn & Ehlers, painting (signs)	6 00
1888—October 3—Payroll, month of August	\$1,707 80
S. Foster & Co., supplies	\$938 65
J. B. O'Brien, dry goods, etc.	245 01
Best & Williams, meats	113 74
Dr. A. E. Osborne, Superintendent, contingent expenses	97 69
J. Widney, supplies	70 10
J. Cereghino, vegetables	63 35
McNeil Bros., printing and binding	26 95
R. Howes, fish and poultry	22 95
E. H. Guppy & Son, stationery	22 40
S. Oberdeener, drugs and medicines	31 86
J. M. Raney, livery hire	19 20
Frederick W. Barlow, rubber stamps	6 00
M. J. Stafford, newspapers	3 50
1888—October 15—Payroll, month of September, 1888	2 80
S. Foster & Co., supplies	\$929 22
J. B. O'Brien, dry goods, etc.	260 80
Best & Williams, meats	212 48
Dr. A. E. Osborne, Superintendent, contingent expenses	106 21
R. H. Quincy, coal	110 78
W. A. Schrock, bedsteads	84 00
J. Widney, supplies	52 00
Ant. Fatjo, supplies	51 36
C. Hicks & Co., shoes and repairs	44 25
S. Oberdeener, drugs and medicines	40 90
R. Howes, fish and poultry	26 50
R. A. Swain & Co., crockery	23 25
F. W. Munch, blacksmithing	29 05
J. Cereghino, vegetables, etc.	18 90
Robert Menzell, plumbing repairs	15 00
John A. Nace, stationery	14 80
Schemmell's Music House, school supplies	10 15
	8 64

W. F. Wilson, repairs	\$4 60	
The Bancroft Company, school supplies	4 22	
E. H. Guppy & Son, stationery	3 30	
		\$2,049 81

1888—November 21—Payroll, month of October, 1888	\$937 67	
S. Foster & Co., supplies	334 08	
Frank S. Widney, insurance	292 50	
Best & Williams, meat	147 10	
Dr. A. E. Osborne, Superintendent, contingent expenses	146 22	
H. M. Sheldon, wagon	125 00	
J. Widney, assignee Universal Bakery, bread	81 38	
W. A. Schrock, bedsteads	44 00	
C. Tischer, laundry soap	27 00	
J. Cereghino, vegetables and fruit	23 35	
S. Oberdeener, drugs and medicines	20 55	
R. Howes, fish and poultry	15 75	
J. Widney, assignee J. R. Shields, supplies	14 25	
J. Widney, supplies	5 00	
Farmers Union, supplies	4 04	
William Grey, repairs	4 00	
Theo. Messinger, services	3 80	
E. H. Guppy & Son, stationery	3 15	
M. J. Stafford, newspapers	2 80	
Yates & Co., machine supplies	2 50	
		\$2,204 14

1888—December 15—Payroll, month of November, 1888	\$980 49	
S. Foster & Co., supplies	287 87	
R. H. Quincy, coal	140 00	
Notley Bros., wood	125 00	
J. B. O'Brien, dry goods, etc.	117 43	
Best & Williams, meats	111 05	
Dr. A. E. Osborne, Superintendent, contingent expenses	101 22	
J. Widney, assignee of Universal Bakery, bread	74 23	
Ant. Fatjo, supplies	67 80	
R. Howes, fish and poultry	48 65	
S. Oberdeener, drugs and medicines	30 70	
Farmers Union, supplies	28 60	
C. Tischer, laundry supplies	21 25	
Charles S. Eaton, musical supplies	18 00	
George Free, truckage	17 00	
J. Cereghino, vegetables and fruit	15 75	
J. A. & J. H. Farmer, shoes	13 00	
Holbrook, Merrill & Stetson, school supplies	11 91	
J. Widney, supplies	3 50	
Osborn & Alexander, school supplies	1 85	
		\$2,215 30

1889—January 26—Payroll, month of December, 1888	\$1,012 16	
R. D. Chandler, coal	325 50	
S. Foster & Co., supplies	304 06	
J. H. Johnson, hay	185 97	
Dr. A. E. Osborne, Superintendent, contingent expenses	110 06	
Farmers Union, gasoline	95 09	
R. H. Quincy, ice and coal	72 69	
San José Manufacturing Company, furniture	61 00	
J. Widney, assignee of Universal Bakery, bread	61 01	
Mrs. Katherine B. Lathrop, traveling expenses	44 20	
C. Hicks & Co., shoes and repairs	38 25	
R. Howes, fish and poultry	35 62	
C. Tischer, laundry soap	25 50	
William Harney, traveling expenses	22 40	
T. W. Hobson, clothing	18 75	
J. Widney, supplies	17 50	
W. F. Wilson, repairs	16 10	
Mrs. J. M. Judah, traveling expenses	15 80	
George Free, truckage	15 20	
J. C. Johnson, harness	14 00	
E. H. Guppy & Son, stationery	13 30	
George W. Lord, machine supplies	12 76	
William Grey, machine repairs	11 85	
A. A. Withrow, repairing harness	9 35	
R. A. Swain & Co., crockery	7 90	
Theodore Messinger, services	5 00	
George B. McKee & Co., glass	1 60	
		\$2,552 62

1889—February 22—Payroll, month of January, 1889.....	\$1,051 33	
S. Foster & Co., supplies.....	373 81	
J. B. O'Brien, dry goods, etc.....	245 01	
Best & Williams, meats.....	228 45	
A. W. Saxe, M.D., medical attendance.....	140 00	
S. Oberdeener, drugs and medicines.....	85 55	
Universal Bakery, bread.....	81 60	
Dr. A. E. Osborne, Superintendent, contingent expenses.....	71 59	
E. J. Baker, feed.....	50 00	
H. S. Crocker & Co., stationery.....	42 00	
Robert Menzell, plumbers' repairs, etc.....	35 80	
Ant. Fatjo, supplies.....	32 95	
Farmers Union, gasoline.....	28 60	
J. Cereghino, vegetables and fruit.....	26 95	
C. Tischer, laundry soap.....	25 50	
J. K. Davis, cart.....	25 00	
F. W. Munch, blacksmithing.....	24 64	
McNeil Bros., printing and binding.....	16 75	
Davis Bros., school supplies.....	11 25	
R. Howes, fish and poultry.....	7 92	
E. H. Guppy & Son, stationery.....	6 81	
Osborn & Alexander, school supplies.....	5 80	
M. J. Stafford, newspapers.....	4 20	
Whittier, Fuller & Co., tools.....	4 00	
W. A. Schrock, supplies.....	3 60	
George Denne, frames.....	3 00	
W. E. Waddams, veterinary services.....	3 00	
The John Stock Sons, repairs.....	2 75	
William Grey, repairs.....	2 00	
		\$2,639 86
1889—March 28—Payroll, month of February, 1889.....	\$1,034 66	
S. Foster & Co., supplies.....	402 62	
A. R. Woodhams, hay.....	184 50	
Dr. A. E. Osborne, Superintendent, contingent expenses.....	179 76	
Best & Williams, meats.....	110 96	
Universal Bakery, bread.....	82 40	
Farmers Union, supplies.....	40 30	
B. Hicks, shoes and repairs.....	32 00	
C. Tischer, laundry soap.....	25 50	
Joel Frankenberg, wages.....	25 00	
J. Koenig & Son, shoes.....	23 00	
Notley Bros., wood.....	22 50	
O. A. Hale & Co., dry goods, etc.....	19 10	
William Grey, machine repairs.....	16 70	
J. Cereghino, vegetables and fruit.....	12 55	
Theo. Messinger, services.....	10 80	
E. J. Baker, feed.....	9 75	
J. R. Shields, supplies.....	9 40	
E. H. Guppy & Son, stationery.....	6 15	
John A. Nace, stationery.....	6 15	
R. Howes, fish and poultry.....	5 17	
Osborn & Alexander, school supplies.....	4 95	
San José Manufacturing Company, repairs to furniture.....	4 80	
		\$2,268 72
1889—April 17—Payroll, month of March, 1889.....	\$988 65	
S. Foster & Co., supplies.....	287 20	
Best & Williams, meats.....	108 42	
Dr. A. E. Osborne, Superintendent, contingent expenses.....	102 58	
G. C. Jenkins, insurance.....	101 35	
J. Widney, assignee of Universal Bakery, bread.....	91 16	
Farmers Union, gasoline.....	59 65	
S. Oberdeener, drugs and medicine.....	40 35	
Ant. Fatjo, supplies.....	37 45	
J. Koenig & Son, shoes.....	28 75	
J. B. O'Brien, dry goods.....	28 52	
C. Tischer, laundry soap.....	25 50	
J. Cereghino, vegetables and fruit.....	17 35	
The John Stock Sons, repairs.....	15 48	
R. Howes, fish and poultry.....	9 46	
F. W. Munch, blacksmithing.....	9 25	
George Free, truckage.....	4 50	
E. J. Baker, feed.....	4 20	
O. A. Hale & Co., dry goods, etc.....	75	
		\$1,960 57

1889—June 8—Payroll, month of April, 1889	\$1,006 76	
June 9—S. Foster & Co., supplies	268 60	
D. McCarthy, horse	150 00	
H. Messing & Co., buggy	99 50	
Dr. A. E. Osborne, Superintendent, contingent expenses	94 46	
W. A. Schrock, bedsteads	84 00	
Best & Williams, meats	83 91	
John Widney, assignee Universal Bakery, bread	62 11	
R. Menzell, repairs and supplies	51 61	
A. R. Woodhams, cow	50 00	
San José Manufacturing Company, furniture	28 00	
C. Tischer, laundry soap	24 00	
R. A. Swain & Co., crockery	18 38	
E. J. Baker, feed	18 05	
T. E. Gallup, dentistry	18 00	
J. Cereghino, vegetables and fruit	16 20	
Carboni & Monte, plants	15 00	
McGettigan & Coe, bread	10 69	
R. Howes, fish and poultry	9 10	
E. H. Davies, repairs	7 60	
H. M. Sheldon, repairs	7 00	
Yates & Co., machine supplies	5 00	
Farmers Union, supplies	4 65	
H. S. Crocker & Co., stationery	4 50	
E. H. Guppy & Son, stationery	3 50	
The John Stock Sons, repairs	2 85	
H. A. Pfister, lime	2 00	
		\$2,145 47
1889—June 21—Payroll, month of May, 1889	\$1,001 50	
S. Foster & Co., supplies	335 53	
J. B. O'Brien, dry goods, etc.	144 35	
Best & Williams, meats	89 90	
Ant. Fatjo, supplies	89 00	
Dr. A. E. Osborne, Superintendent, contingent expenses	87 28	
McGettigan & Coe, bread	67 55	
Austin & Phelps, hand-grenades	62 42	
Pacific Manufacturing Company, wood	38 25	
S. Oberdeener, drugs and medicines	34 50	
C. Tischer, laundry soap	24 00	
E. J. Baker, feed	22 97	
J. Cereghino, vegetables and fruit	19 50	
Farmers Union, supplies	11 71	
Schemmell Music House, school supplies	10 34	
Mrs. E. A. Yard, fruit	8 88	
R. Howes, fish and poultry	8 49	
E. H. Guppy & Son, stationery	6 95	
M. J. Stafford, newspapers	5 70	
The John Stock Sons, repairs	4 75	
McNeil Bros., printing, etc.	4 50	
		\$2,078 16
1889—July 16—Payroll, month of June, 1889	\$985 54	
July 17—S. Foster & Co., supplies	530 90	
John Sallows, cutting and baling hay	217 76	
A. R. Woodhams, hay	202 00	
Best & Williams, meats	113 75	
Ant. Fatjo, supplies	87 30	
Dr. A. E. Osborne, Superintendent, contingent expenses	73 68	
W. S. Douglass, agent, fire extinguishers	72 00	
S. Oberdeener, drugs and medicines	64 90	
Farmers Union, gasoline, etc.	59 90	
McGettigan & Coe, bread	57 25	
C. Hicks, shoes and repairs	55 50	
Cooper & Smith, whitewashers, etc.	45 00	
Mrs. Katherine B. Lathrop, traveling expenses	44 20	
Pacific Manufacturing Company, wood	38 25	
J. B. O'Brien, dry goods, etc.	36 97	
J. Cereghino, vegetables and fruit	35 20	
John A. Day, blacksmithing	31 25	
R. Menzell, repairs and supplies	30 94	
"Morning Times," advertising	27 00	
Mrs. Julia M. Judah, traveling expenses	25 20	
The "Examiner," advertising	25 20	
Mack & Co., supplies	25 03	
Geo. H. Powers, M.D., medical attendance	25 00	
William Harney, traveling expenses	22 40	

Union Ice Company, ice.....	\$22 20
J. N. Thompson, dairy hire.....	21 33
John Widney, supplies.....	18 60
O. A. Hale & Co., supplies.....	17 05
A. Withrow, repairing harness.....	16 65
E. J. Baker, feed.....	12 57
R. Howes, fish and poultry.....	11 89
L. V. Garrigus, painting.....	10 00
The Bancroft Company, school supplies.....	9 00
J. Koenig & Son, shoes.....	7 25
Chas. A. Murdock, traveling expenses.....	6 40
Theo. Messinger, services.....	6 20
McNeil Bros., printing, etc.....	5 00
M. J. Stafford, newspapers.....	2 80
	<hr/>
	\$3,099 06
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<i>Paid on Indebtedness Incurred During the Thirty-ninth Fiscal Year.</i>	\$26,575 71

1888—October 15—Estate of R. K. Ham, buggy.....	\$50 00
Ant. Fatjo, supplies.....	26 90
F. W. Munch, repairs.....	13 40
	<hr/>
Total.....	\$90 30
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	\$26,666 01

SCHEDULE B.

Classified Expenditures made on Account of Maintenance during the Fortieth Fiscal Year.

1889—June 30—To expenditure for crockery.....	\$91 80
To expenditure for clothing.....	51 85
To expenditure for dry goods.....	829 45
To expenditure for expressage and freight.....	101 03
To expenditure for expense and repairs.....	829 15
To expenditure for furniture.....	505 70
To expenditure for feed for stock.....	1,112 68
To expenditure for fish and poultry.....	234 90
To expenditure for fuel.....	926 09
To expenditure for farm.....	598 15
To expenditure for groceries.....	3,883 06
To expenditure for hardware and tools.....	78 59
To expenditure for insurance.....	363 85
To expenditure for ice.....	87 49
To expenditure for kitchen ware.....	10 20
To expenditure for laundry.....	387 78
To expenditure for light.....	325 06
To expenditure for meats and provisions.....	1,589 91
To expenditure for medicine and attendance.....	561 18
To expenditure for postage and stamps.....	90 46
To expenditure for shoes and repairing.....	238 65
To expenditure for stock (live).....	219 50
To expenditure for salaries and wages.....	12,353 94
To expenditure for stationery, etc.....	248 91
To expenditure for telegraphing and delivery.....	46 15
To expenditure for traveling expenses.....	352 30
To expenditure for vegetables and fruit.....	481 78
To expenditure for woodenware, etc.....	66 40
	<hr/>
	\$26,666 01

SCHEDULE C.

Receipts from the State Controller on Account of the Appropriation for Improvements during the Fortieth Fiscal Year.

1888—August 16—Received coin from the State Controller.....	\$192 60
September 20—Received warrants Nos. 2482 to 2485 from the State Controller.....	297 93
October 15—Received warrants Nos. 3809 to 3813 from the State Controller.....	181 62
November 19—Received warrants Nos. 5184 to 5187 from the State Controller.....	785 91
December 14—Received warrants Nos. 6541 to 6544 from the State Controller.....	281 73

1889—January 26—Received warrant No. 8967 from the State Controller.....	\$425 42
February 21—Received coin from the State Controller.....	931 83
June 8—Received coin from the State Controller.....	100 39
June 21—Received coin from the State Controller.....	53 93
July 16—Received coin from the State Controller.....	1,343 54
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	\$4,600 95

SCHEDULE D.

Payments made from the State Appropriation for Improvements for the Fortieth Fiscal Year.

1888—August 17—George W. Page, laundry	\$100 00	
Joel Frankenberger, grounds.....	20 00	
B. A. England, grounds.....	24 00	
George P. Bassett, water.....	25 00	
William Gray, laundry.....	23 00	
	<hr/>	\$192 60
September 21—Santa Clara Valley Mill and Lumber Company, buildings.....	\$169 10	
W. S. Winters, buildings.....	77 88	
Joel Frankenberger, grounds.....	25 00	
B. A. England, grounds.....	26 00	
	<hr/>	\$297 98
October 15—Joel Frankenberger, grounds.....	\$25 00	
B. A. England, grounds.....	25 00	
Santa Clara Valley Mill and Lumber Company, buildings...	38 45	
Robert Menzell, laundry.....	33 50	
W. W. Montague, laundry.....	33 42	
W. T. Peterson, buildings.....	26 25	
	<hr/>	\$181 62
November 20—North Coast Lumber Company, buildings.....	\$491 90	
November 21—Pacific Manufacturing Company, buildings.....	80 26	
Joel Frankenberger, grounds.....	21 00	
W. S. Winters, buildings.....	77 00	
D. W. James, buildings.....	63 00	
James A. Grant, buildings.....	33 75	
L. A. Sweatt, buildings.....	15 00	
	<hr/>	\$785 91
December 20—Pacific Manufacturing Company, buildings.....	\$121 19	
J. Widney, buildings.....	67 84	
A. Fatjo, buildings.....	39 70	
Joel Frankenberger, grounds.....	25 00	
W. S. Winters, buildings.....	14 00	
D. W. James, buildings.....	14 00	
	<hr/>	\$281 73
1889—February 4—H. P. Gregory, laundry.....	\$89 25	
February 3—Santa Clara Valley Mill and Lumber Company, buildings.....	68 64	
January 26—D. H. Shields, light.....	52 30	
Joel Frankenberger, grounds.....	25 00	
B. A. England, grounds.....	26 00	
February 4—Dalzel & Moller, laundry.....	46 00	
January 28—J. Widney, assignee of A. H. Scott, buildings.....	36 00	
February 23—J. R. Chapman, buildings.....	29 37	
February 6—Pacific Manufacturing Company, buildings.....	52 86	
	<hr/>	\$425 42
February 23—George H. Tay & Co., water.....	\$520 75	
George H. Tay & Co., laundry.....	118 50	
February 22—North Coast Lumber Company, buildings.....	112 30	
George H. Turner, grounds.....	71 80	
J. P. Corpstein, buildings.....	50 75	
Joel Frankenberger, grounds.....	25 00	
Robert Menzell, buildings.....	12 88	
Pacific Manufacturing Company, buildings.....	9 90	
A. Fatjo, buildings.....	7 95	
H. A. Pfister, buildings.....	2 00	
	<hr/>	\$931 83
June 8—Pacific Manufacturing Company, grounds.....	\$43 06	
Joel Frankenberger, grounds.....	50 00	
Ralph McNish, grounds.....	13 33	
	<hr/>	\$106 39
June 21—E. M. Chase, grounds.....	\$23 33	
R. Menzell, water.....	19 90	
Pacific Manufacturing Company, buildings.....	10 70	
	<hr/>	\$53 93

July 1—J. H. Griswold, laundry	\$733 00
A. J. Fish & Co., bakery	425 00
July 16—Dr. A. E. Osborne, Superintendent, bakery	100 00
Pacific Manufacturing Company, buildings	40 54
E. M. Chase, grounds	25 00
G. G. Wickson & Co., laundry	20 00
	<hr/>
	\$1,343 54
	<hr/>
	\$4,600 95

SCHEDULE E.

Classified Expenditures made from State Appropriation for Improvements during Fiscal Year ending June 30, 1889.

1889—June 30—To expenditures on pavilion, and alterations, additions, and improvements to buildings	\$1,790 09
To expenditures on increase of light	56 28
To expenditures on increase of water supply	569 60
To expenditures on laundry equipment, etc.	1,205 52
To expenditures on bakehouse equipment (oven)	525 00
To expenditures on improvement of grounds	454 46
	<hr/>
	\$4,600 95

SCHEDULE F.

Receipts from the State Controller as per Special Appropriation made to cover Deficiency Claims during the Thirty-eighth Fiscal Year.

1889—March 25—Received from State Controller warrant No. 14390 on the State Treasurer	\$10,921 34
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SCHEDULE G.

Payment made from Proceeds of Special Appropriation made by the Legislature to cover the Deficiency Claims and the Interest thereon, Thirty-eighth Fiscal Year.

1889—March 25—Paid Commercial and Savings Bank of San José amount loaned for payment of the deficiency claims of the thirty-eighth fiscal year	\$9,835 14
Paid Commercial and Savings Bank of San José, interest on said loan	1,086 20
	<hr/>
	\$10,921 34

SCHEDULE H.

Receipts from the Parents and Guardians of Children made on Account of Tuition and Maintenance during the Fortieth Fiscal Year.

1889—June 30—Total amount received	\$3,287 50
Received from the sale of junk	6 25
Total	<hr/>
	\$3,293 75

SCHEDULE I.

Received as Special Gifts and Donations made during the Fortieth Fiscal Year.

1888—July 2—From guardian of Walter Dorr	\$50 00
July 16—From Samuel N. Hundley	150 00
July 17—From O. J. Stough	150 00
August 1—From Wm. Graves	10 00
August 25—From W. C. Bacon	10 00
September 6—From guardian of Mary Dieter	15 00
October 2—From guardian of Mary Dieter	15 00
November 11—From guardian of Mary Dieter	15 00
November 29—From guardian of Mary Dieter	15 00
December 5—From Samuel N. Hundley	150 00
December 20—From J. O. W. Paine	20 00

1889—January 5—From guardian of Mary Dieter.....	\$15 00
January 30—From guardian of Mary Dieter.....	15 00
March 4—From guardian of Mary Dieter.....	15 00
April 12—From guardian of Mary Dieter.....	407 88
April 12—From Miss Law (Watsonville).....	79 65
May 24—From O. J. Stough.....	200 00
May 31—From O. J. Stough.....	150 00
	<hr/>
	\$1,482 53

SCHEDULE J.

Receipts on Account of the Amusement Fund.

1888—July 4—Cash received from H. R. Judah.....	\$5 00
1889—January 31—Cash received from unknown party.....	5 00
	<hr/>
	\$10 00

SCHEDULE K.

Receipts from the Superintendent of Balance of Christmas Fund remaining in his hands.

1888—September 30—Balance of Christmas fund.....	\$9 40
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SCHEDULE L.

Payments made to the State Treasurer of Receipts for Tuition and Maintenance during the Fortieth Fiscal Year.

1888—August 13—To coin forwarded to State Treasurer.....	\$257 00
September 4—To coin forwarded to State Treasurer.....	187 75
October 12—To coin forwarded to State Treasurer.....	447 00
November 5—To coin forwarded to State Treasurer.....	226 00
December 3—To coin forwarded to State Treasurer.....	209 00
1889—January 9—To coin forwarded to State Treasurer.....	281 00
March 25—To coin forwarded to State Treasurer.....	150 00
March 25—To coin forwarded to State Treasurer.....	150 50
April 15—To coin forwarded to State Treasurer.....	361 00
July 2—To coin forwarded to State Treasurer.....	170 00
	<hr/>
	\$2,439 25

SCHEDULE M.

Special Cash Balances, and how Invested.

CR.

1889—June 30—By balance of Special Donation Fund.....	\$1,977 13
By balance of Income Fund.....	854 50
By balance of Amusement Fund.....	60 00
By balance of Christmas Fund.....	9 40
	<hr/>
	\$2,901 03

DR.

1889—June 30—To loan made (special) Bank Santa Clara County.....	\$1,000 00
To loan made (special) to Board of Trustees.....	300 00
To cash in hands of B. D. Murphy, Treasurer.....	1,601 03
	<hr/>
	\$2,901 03

SCHEDULE N.

Recapitulation of Receipts and Expenditures during the Fortieth Fiscal Year.

CR.

1888—July 1—By cash balance in hands of Treasurer.....	\$625 00
By cash balance in hands of Trustees.....	100 00
1889—June 30—By warrants and coin from State Controller, on account of maintenance for the fortieth fiscal year.....	26,666 01
By warrants and coin from State Controller, on account of improvements fortieth fiscal year.....	4,600 95

By warrants from the State Controller, as per special appropriation for deficiency account for the thirty-eighth fiscal year.....	\$10,921 34
By cash received from parents and guardians, on account of tuition and maintenance.....	3,287 50
By cash received from sale of junk, etc.	6 25
By cash received from special donations	1,482 53
By cash received for Amusement Fund	10 00
By cash received, balance of Christmas Fund	9 40
	<hr/>
	\$47,708 98

DR.

1889—June 30—To amount paid local creditors for maintenance fortieth fiscal year.....	\$26,666 01
To amount paid local creditors for improvements.....	4,600 95
To amount paid loan made by Commercial and Savings Bank of San José, on account of deficiency claims thirty-eighth fiscal year	9,835 14
To amount paid Commercial and Savings Bank for interest on loan, as per Act of Legislature.....	1,086 20
To coin forwarded to State Treasurer.....	2,439 25
To special deposit (bearing interest) made with the Bank of Santa Clara County.....	1,000 00
To cash paid contingent expenses of Trustees, said amount from Special Fund	130 40
To cash in hands of Trustees.....	300 00
To cash in hands of Treasurer.....	1,601 03
	<hr/>
	\$47,708 98

EXHIBIT A.

Christmas Fund, 1888—Receipts in Cash.

1888—December 12—C. A. Merkle, San José.....	\$5 00
W. S. Bowne, Santa Clara.....	20 00
December 13—J. B. Randol, New Almaden.....	40 00
Mack & Co., San Francisco.....	2 00
Mrs. M. Brown, San Francisco.....	5 00
December 14—W. H. Thomas, San Francisco.....	5 00
Rev. A. L. Kellogg, Santa Clara	1 00
Edward Myall, Agnews.....	1 00
Bank of Gilroy, Gilroy.....	5 00
George T. Taylor, San Francisco.....	5 00
December 15—George L. Beaver, Santa Clara.....	2 50
Miss Lillie Pardon, Monterey.....	1 25
December 16—R. Menzell, Santa Clara.....	3 00
December 17—E. C. Snyder, Ferndale.....	3 00
W. J. Curtis, San Bernardino.....	5 00
George W. Alexander, San Francisco.....	15 00
David Jacks, Monterey.....	5 00
A. N. Towne, Southern Pacific Railroad Company, San Francisco.....	20 00
T. H. Goodman, Southern Pacific Railroad Company, San Francisco.....	5 00
J. A. Fillmore, Southern Pacific Railroad Company, San Francisco.....	5 00
W. Morrison, Columbus, Ohio	5 00
Ariel Lathrop, San Francisco.....	10 00
W. H. Goucher, Los Angeles.....	5 00
R. N. Pratt, Southern Pacific Railroad Company, San Francisco.....	2 00
Sale of four ties contributed by four children.....	1 00
Mrs. W. C. Bacon, Hueneme.....	2 50
December 18—Miss E. W. Peck, sale of goods.....	1 60
C. Hicks & Co., Santa Clara.....	5 00
G. C. Jenkins, Santa Clara.....	2 00
Sale of children's work by Miss A. Jones.....	2 10
August Harms, Pleasanton.....	1 00
Mrs. Hanson (Sunday School collection, San Francisco).....	3 00
H. Claussen, Point Reyes.....	5 00
H. Claussen, for H. Holmberg.....	5 00
John Stock Sons, San José.....	5 00
Rev. Robert Bentley, Oakland.....	5 00
Frank M. C. Ellis, San Francisco.....	5 00
Thomas J. Hannon, Los Angeles.....	4 00
Philip Dieter, San Francisco.....	2 00
Mrs. Wm. Alley, San Francisco.....	2 50
December 20—Rinda Berry, San José.....	2 50
Mrs. Cleary, San Francisco.....	2 00
Cash, Santa Clara.....	3 00

Mrs. Henry P. Bowie, San Mateo	\$5 00
Jacob Eberhard, Santa Clara	10 00
A friend, San Francisco	2 00
Richard Burnett, San Francisco	1 00
Mrs. H. L. Jessup, San Francisco	5 00
H. Leonard, Santa Clara	2 50
C. H. Worthington, Santa Clara	1 00
J. B. O'Brien, Santa Clara	5 00
Wm. T. Wilson, San Francisco	10 00
Frank P. Maguire, Santa Barbara	5 00
J. O. W. Paine, San Diego	2 00
Mrs. Cordelia Sheppard, Oakland	5 00
Mrs. Hannah L. Dodge, Oakland	5 00
December 21—Sale of children's work	1 00
Santa Clara Mill and Lumber Company, San José	10 00
Mrs. E. Patterson, Linden	1 00
Mrs. P. Grace, Madera	2 50
Mrs. B. D. Miller, Sacramento	2 50
Mrs. A. J. Snodgrass, Ventura	5 00
E. A. Tinkelpaugh, San Bernardino	1 00
Wm. A. Tyson, Woodland	5 00
Mrs. B. V. Weeks, Pescadero	2 50
Mrs. Albert Page, Emmett	1 00
Rev. Father Kenna, Santa Clara College	5 00
Mrs. A. E. Wells (for Margaret Kenna)	1 00
L. Zinnamon (for Theresa Simonsen)	2 50
Two little boys, Selby	14 00
December 22—Camilo Martin, San Francisco	6 00
Miss J. Knowlton, Watsonville	10 00
Mrs. C. Tobin, San Francisco	10 00
Mrs. Peterson, Napa	5 00
Miss Gertrude Clough, San Bernardino	5 00
December 24—S. Goldsmith, Santa Ana	1 00
Chris. Keebler (per Mrs. Kelsey), Los Angeles	5 00
John T. Riorden, Vallejo	2 50
E. Folks, San Bernardino	2 00
S. Oberdeener, Santa Clara	5 00
R. B. Chadwick, Sacramento	1 00
December 25—Mrs. Judge Belden, San José	5 00
Chas. Lutgen, San Francisco	5 00
T. A. Harns (for Emma Harns)	1 00
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\$410 95	

EXHIBIT B.

Cash Disbursements, account of Christmas Fund.

1888—December 12—Lot of assorted gifts (K. B. L.)	\$25 00
December 17—Charles Eaton, musical supplies	4 40
Expenses to and from San Francisco, including cash purchases	16 75
December 18—Expressage on goods	2 70
December 27—Maurice O'Brien, San José, candy	16 10
O. A. Hale & Co., San José, dry goods	81 10
1889—January 9—Louis Duncan, Santa Clara, supplies	7 00
Golden Rule Bazaar, Christmas gifts	84 95
D. R. Niver Publishing Company, Sunday School paper	8 75
January 10—J. B. O'Brien, sundries (gifts)	27 40
January 17—Subscription to Art Amateur, one year	4 00
Blake's books of gymnastics, for school	75
Postage, etc.	5 25
February 1—Printing ("Journal" office)	3 50
Ties, etc., for boys	3 00
Harry Tuck, San José, orchestra	15 00
Masquerade supplies	3 00
Entertainment and stage supplies	12 15
March 15—Professor Raney, musical entertainment	10 00
April 27—Cakes from baker	1 50
May 29—Watch for Frank Manning	4 50
June 16—The Fair, San José (three tents)	22 80
July 22—Mrs. Hillman, rent of camping grounds, five weeks	31 25
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\$390 85	

EXHIBIT C.

Special Disbursements, account Christmas Fund.

Cash expended, account of H. Holmberg	\$5 00
Cash expended, account of Ernest Page	1 00
Cash expended, account of Margaret Kenna	1 00
Cash expended, account of Theresa Simonson	2 50
Cash expended, account of Emma Harnes	1 00
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	\$10 50

EXHIBIT D.

Recapitulation of Expenditures, account of Christmas Fund.

General expenditures	\$390 85
Special expenditures	10 50
Balance on hand	9 60
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	\$410 95

EXHIBIT E.

Donations to Christmas Fund, other than Cash.

December 13, 1888—Mrs. M. Brown, San Francisco, box of apples, two boxes candy, and tree decorations.

December 15, 1888—Mrs. Wilshire, No. 1804 Sutter Street, San Francisco, and Wilshire Safe and Scales Co., Nos. 204-206 California Street, San Francisco, box with doll, two pairs shoes, five pairs stockings, doll bonnet, flannel shirt, box of candy, wheel bell, tin goat, box large A B C blocks, picture paper, rubber sheep, two business directories of San Francisco, small book of proverbs, five Christmas cards, perforated slate drawing cards, box of building blocks, illustrated catalogue, San Francisco, one volume Baby Land (bound), Prodigal Son, picture book of domestic animals, object teacher, and Christmas dolls.

December 15, 1888—Mrs. W. C. Bacon, for Lulu, box small A B C cards, three bibs.

December 18, 1888—Lottie Vander Naillen, San Francisco, five picture books, transparent drawing slate, two horns, two handkerchiefs, sixteen Japanese boxes (small), candies, one Japan box, one wool sheep, one tub, one image, two toy watches, one wood pitcher, one (toy) heifer, one kaleidoscope.

December 19, 1888—Charles S. Eaton, San Francisco, three dozen harmonicas.

December 19, 1888—Mr. Jefferson, six story books.

December 19, 1888—Methodist Depository, San Francisco, one and one third dozen Christmas cards.

December 19, 1888—Mrs. E. Friend, San Francisco, one jersey, one fancy box, two handkerchiefs and blue ruches, Christmas cards, one apron, pocketbook containing 75 cents, two pairs stockings, one skirt, three pairs drawers, two vests.

December 19, 1888—George Hooper, one box candies.

December 19, 1888—Unknown, one dozen tree ornaments, one box, one dozen favors, Santa Claus, one bird and nest (toy), three tree figures, two candy boxes, violin and bow (toy), one image.

December 19, 1888—Captain Merithew, box almonds.

December 19, 1888—Mrs. A. E. Wells, for Margaret Kenna, cakes, one box candies, music box, satchel, breastpin, pair earrings, card.

December 19, 1888—W. H. Hobson & Co., San José, nine pairs boy's pants.

December 19, 1888—Miss Hannon, Los Angeles, for brothers Willie and Ellie, two books, two silk handkerchiefs, two silk scarfs.

December 19, 1888—Bay Farm Island (Alameda) Sunday School, by Mrs. L. H. Nolter, 132 Oak Street, two Testaments, ten gospel hymns, 1, 2, 3, twenty-six youth's story books.

December 19, 1888—Mrs. B. V. Weeks, Pescadero, three handkerchiefs, one tie, twenty-two picture cards, twenty-one primer picture books, sixty-three copies "Well Spring."

December 19, 1888—J. W. Kerr, for Alice, one pair shoes, one worsted hood, one night-gown, one doll, one pair drawers, one handkerchief.

December 21, 1888—Farmers Union, one box raisins, one paper bag of nuts.

December 21, 1888—Mrs. B. Brown, San Francisco, for Margaret, one fancy shell box, five handkerchiefs, blue and red ribbons, remnant of calico, one doll.

December 21, 1888—Mrs. Weidemuller, for Charlie, three handkerchiefs, one tie, two pairs stockings, Waterbury watch (silver), one box of candies.

December 21, 1888—L. Zinnamon, five primer picture books, package (about one hundred and fifty) cards.

December 21, 1888—Newman & Levison, San Francisco, eight woolen sheets, five pairs woolen leggins, three worsted mitts, three pairs woolen stockings, fifteen pairs assorted stockings, one hat, one box tree ornaments.

December 21, 1888—Mrs. Harris, for Bennie, two collars, one tie, one pair stockings, two sheets.

- December 21, 1888—A. W. Woodams, one box fruit, two boxes raisins, prunes, and plums.
- December 21, 1888—Camilo Martin, for Leo, tie and box of candy.
- December 21, 1888—Thomas Riley, Santa Clara, box of candy (ten pounds).
- December 21, 1888—Mrs. M. E. Camplin, San José—Box raisins, box candies (twelve pounds), one shirt.
- December 21, 1888—Mrs. J. S. Potts, three fancy straw boxes, three autograph albums, four story books, nine picture cards.
- December 21, 1888—Mrs. Page, for Pearl, one doll, three pairs stockings, two knit shirts.
- December 22, 1888—James A. Hoffman, box Christmas cards (assorted).
- December 22, 1888—Mrs. F. Wilson, for Maud, one fan, one Jersey, two worsted dresses, one calico apron, two calico skirts, two large and four small pictures.
- December 22, 1888—Mrs. Mary Giles, for Eddie, one box candy, one harmonica, handkerchiefs.
- December 22, 1888—Mrs. Manning, for Frank, two white shirts.
- December 22, 1888—Two little boys, Selby, California, one pair mitts, one package Sunday School papers, one doll, one box Scriptural and advertising cards, one lot marbles, seven story books, one drum, one kilt suit.
- December 22, 1888—Mrs. H. M. Jessup, for Louis, large portrait of his father.
- December 22, 1888—Mrs. J. Harris, one box fancy cakes.
- December 22, 1888—Mrs. Oliver Eldridge, San Francisco, Christmas number of "Illustrated London News," roll of chromos and cards, fifty candy bags, one box candies, lot assorted nuts, one box figs, one box Christmas cards, two paper bags popcorn.
- December 22, 1888—W. D. Ewer & Co., San Francisco, large box candy.
- December 22, 1888—Mrs. Crocker, San Francisco, box of paints, five dolls, two mats, small basket, wheelbarrow, two doll hats, two woolly sheep, two (toy) horses, four woolly birds, one doll dress, six doll shoes, one fancy box, four (toy) houses, fifteen fancy boxes candy, five fancy boxes (empty), fifty-four Christmas cards, one doll head, one box blocks, nineteen books, four toys, one accordion, one music box, three chairs, lounge, and table for doll house, one safe (toy), parasol.
- December 22, 1888—Swain & Co., twenty-seven vases (assorted), seven images, six swing figures.
- December 22, 1888—Mrs. Peterson, fourteen cards, three baseballs, twelve books, fourteen china toys, six whistles, one cat, four doll dishes, four tops, two woolly sheep, six dolls, five tin toys.
- December 22, 1888—Mrs. Jones and Mrs. Hutchinson, Fullerton, California, for Etta Jones, photograph, one box candy, raisins.
- December 22, 1888—Mrs. N. D. Fuller, for Douglass, one circus sports, two boxes candy, one Santa Claus, one toy pistol, one slate for the Home, also one drawing slate and one train of cars.
- December 22, 1888—Mrs. Aigeltinger, for C. Kelsey, one silk handkerchief.
- December 22, 1888—Mrs. Robert Bentley, for Eddie, one game and one silver watch.
- December 22, 1888—Mrs. Sarah E. Dorr, for Walter Dorr, one "Cock Robin."
- December 22, 1888—Mrs. Nannie T. Gregg, one pair stockings, one book, one toy.
- December 22, 1888—Mrs. McDonald, for S. N. Hundley, one trumpet, one linen collar, one necktie.
- December 22, 1888—Mrs. N. D. Fuller, one tin ferryboat, one rubber ball, one toy cow, one Santa Claus.
- December 22, 1888—For Anna Glendenning, from Lana, one book autumn leaves; also, from father, one lot of cards, lace handkerchief, two cotton handkerchiefs, pair mitts, card game and counters.
- December 22, 1888—Mrs. Folk, for Leon, book of animals and birds.
- December 22, 1888—Mrs. Kennedy, for Griffen, pair of wristlets, Christmas card, and picture papers.
- December 22, 1888—Mrs. Linn, Ventura, California, for Philip, lot of cards, tie, and books.
- December 24, 1888—Mrs. S. Folks, San Bernardino, two pairs of stockings, one box candy, one silk scarf tie, one silk handkerchief, four linen handkerchiefs, one pair suspenders.
- December 24, 1888—Thomas J. Maguire, for Willie, two pairs stockings, one chime of bells, one box handkerchiefs.
- December 24, 1888—T. A. Harms, for Emma, one flannel skirt, one napkin ring, one cake, one photograph album.
- December 24, 1888—Schemmell's Music House, San José, six harmonicos, one box transfer paper, two autograph albums, one writing companion, seven picture books, three Climax school sets.
- December 24, 1888—Mrs. A. L. Thompson, for May, two aprons, one bag candy, and one box candy for the Home.
- December 24, 1888—A. J. Snodgrass, for Claude, one tin plate, two picture books, lot of marbles.
- December 24, 1888—Mrs. M. Perry, Monterey, for Carrie, one white dress and handkerchief, one wool skirt, two dolls, one knit hood, one muslin pattern (for dress), one cake, twelve handkerchiefs, one bag candy, two boxes popcorn.
- December 24, 1888—Mrs. C. Borger, for Milton, one ball, music box, two boxes cakes, and building blocks.
- December 24, 1888—Mrs. A. J. Snodgrass, for Claude, one football, flageolet, top, rubber balloon, trumpet, two oranges, and bag marbles.
- December 24, 1888—Lillie Risdon, one piece ribbon, two fancy handkerchiefs, four pairs

stockings, one bag candy, popcorn, two rubber balloons, three rubber balls, two harmonicas.

December 24, 1888—Mrs. McCarthy, for Thomas, nine oranges, one fruit cake, one lot candy and apples.

December 24, 1888—Unknown, from Valley Springs, one box cakes.

December 24, 1888—Mr. Harris, Santa Clara, one bag nuts.

December 24, 1888—Mr. Woodams, Santa Clara, one bag nuts and two cakes.

December 24, 1888—Hugh Hamilton, Sr., one dozen doughnuts, small bag candy, fancy cakes, two boxes choice candy, three toy watches, four tin horns, one pair socks, two large cakes, four picture books, two picture books (for Hugh), four jumping jacks, one toilet brush holder, four small dolls, three dozen favors.

December 24, 1888—Mrs. B. Cunningham, Campo Seco, for Milton Borger, three copies of "The Disciples," nine jars of preserves.

December 24, 1888—Elihu Wright, Santa Cruz, for Morris, pair mittens. For the Home, two oilcloth bibs, seven collars, four pairs children's drawers, dress calico, A B C blocks, six boy's aprons, four waists, two shirts, doll, toy dustpan and brush, box of popcorn, iron wagon, four pairs socks, five books, dissected blocks, bundle of cakes, two pairs stockings, packet of candy, popcorn, and bell. For Morris, tool chest, toy chromotrope, one book, one shirt, two packages candy, book, handtop, harmonica, marble figure game, watch, Christmas cards, picture paper, two handkerchiefs.

December 24, 1888—Unknown, Oakland, two slates, fifteen books, one box puzzle blocks, copies Harper's Bazaar.

December 24, 1888—Mr. Springer, for Mildred, one box candy, one pair shoes, one corset.

December 24, 1888—T. H. Shields, Santa Clara, one bag almonds.

December 24, 1888—J. H. Elliot, for Dick, one harmonica, one fancy pitcher of cologne, one necktie and pin, silk handkerchief, one pair suspenders.

December 24, 1888—Mattie Manning, for Frank, one hat.

December 24, 1888—Mr. Kreutzman, for Theodora, one pair shoes, one bag candy, two pairs stockings, one comb, looking-glass, toilet case, three fancy handkerchiefs, three linen handkerchiefs, one book, and Christmas cards.

December 24, 1888—Doxie, Palace Hotel, nine scent bags, one lot Sunday School papers, one keyholder, Christmas cards, nine copies "Churchman."

December 24, 1888—W. J. Curtis, for Victor, apples, oranges, almonds, one box candy, book, card, five pairs stockings, necktie, one pair suspenders, one bag raisins, two shirts.

December 24, 1888—Nathan Dorrman & Co., San Francisco, eighteen match safes, twelve china vases, twelve fancy pothooks, twenty-four glass pots (for the same), twelve reflectors, six china pitchers.

December 24, 1888—Mrs. Charles Crocker, one box candy, two bags nuts, one bag of cakes.

December 24, 1888—Mrs. Vander Naillen, for Mary, six oranges, one pair slippers, one bottle cologne, one piece ribbon, one cake of chocolate, two handkerchiefs, two pieces music, photograph album, one ulster.

December 24, 1888—Mrs. Fortson, for Edna, one box of blocks, two scrapbooks, one box candy.

December 24, 1888—Mrs. Field, for Alfred, one pair shoes, one hat, one picture book, one collar, one tie, one musical instrument, picture of birds.

December 24, 1888—Mrs. Ellis, for Arthur, three oranges, one turtle (toy), trumpet, and candies.

December 24, 1888—Levi Strauss & Co., two boxes oranges, one box candy.

December 24, 1888—Mrs. Spencer, for Truman, one pair shoes, one box candy.

December 24, 1888—A. Block, Santa Clara, one wagon load apples, one bag nuts.

December 24, 1888—R. H. Hatch, Spanishtown, California, for Myra, three dolls, ribbon, one box handkerchiefs, picture card, pair mittens, and cloak.

December 24, 1888—Mrs. N. D. Fuller, San Francisco, one wheelbarrow, set of garden tools.

December 24, 1888—E. H. Guppy & Son, San José, two dolls, four bells, three boxes A B C blocks, "1776" game cards, one workbook, two photograph albums, four rubbers and sponges, two games, three autograph albums, five boxes paints, lot of small images, six school companions (tin), five pencil and pen holders, one writing desk, two jacks.

December 26, 1888—Bessie and Charlie Lewis, San José, one package of dolls.

December 26, 1888—Mrs. Ariel Lathrop, twenty-four yards of ribbon (for working girls).

December 31, 1888—Mr. E. Wright, for Morris, horn, watch, handkerchiefs, neckties.

December 31, 1888—A. J. Snodgrass, for Claude, box cakes, apples, oranges, and candy.

INVENTORY JULY 1, 1889.

ARTICLE.	Cost Price.	Market Value.
Six bedsteads (wood).....	.....	\$139 00
One hundred and seventeen bedsteads (iron).....	.....	819 00
Two bedsteads (iron), double.....	\$7 00	22 00
One bed lounge.....	11 00	20 00
One buffet.....	.....	23 50
Eighteen bureaus.....	.....	144 00
Thirteen blankets, white.....	8 00	104 00
Two hundred and fourteen blankets, gray.....	4 75	1,016 50
Four blankets, horse.....	4 25	17 00
One bell.....	.....	12 75
Four bells, table and hall.....	.....	5 20
One boiler, galvanized (one hundred gallons).....	.....	34 00
One boiler, portable (zinc).....	.....	8 00
Two boilers, mush (large).....	5 00	10 00
Three boilers, agate.....	3 50	10 50
One battery, galvanic.....	.....	75 00
Batteries, electric, with outfit.....	.....	18 00
Thirteen benches, school (one hundred and five feet, at 40 cents per foot).....	.....	42 00
Two benches, work.....	1 25	2 50
Two benches, wash.....	1 50	3 00
Eight blackboards.....	5 00	40 00
Two bulletin boards.....	1 00	2 00
Two bread boards.....	75	1 50
One bread tray.....	.....	1 00
Fifteen brooms.....	30	4 50
One meat cutter (patent).....	.....	7 50
One broiler.....	.....	1 50
Two blocks and tackle (sets).....	.....	5 50
Fourteen brackets for lamps.....	40	5 00
Fourteen bottoms for lamps (illuminating).....	30	4 20
Four baskets (hamper).....	6 00	24 00
Six baskets, clothes.....	83g	5 00
Four baskets, house.....	50	2 00
Three baskets, waste.....	60	1 80
Four barrels, water.....	1 50	6 00
One barrel, oil.....	.....	2 00
Two barrels, half ironbound.....	1 00	2 00
Three buckets, tin.....	20	60
Three buckets, agate.....	70	2 10
Fifteen brushes, hair.....	20	3 00
Three brushes, floor.....	1 25	3 75
Six brushes, scrubbing.....	20	1 20
Two book rests.....	75	1 50
One book (institution Bible).....	.....	4 00
One book, Webster's Unabridged Dictionary.....	.....	12 00
One set books, Political Code of California.....	.....	3 00
Six books, Statutes and Amendments, California.....	.....	7 50
One book, San Francisco City Directory.....	.....	5 00
One book, County of Santa Clara Directory.....	.....	3 00
Institution library.....	.....	50 00
Eighteen cribs.....	5 00	90 00
Six cots.....	2 00	12 00
Three clocks, large.....	.....	75 00
Two clocks, medium.....	.....	8 50
Five clocks, small.....	1 50	7 50
Seventy-two comfortable for beds.....	1 50	108 00
Two chairs, office revolving.....	7 50	15 00
Two chairs, office arm, walnut.....	3 00	6 00
Fourteen chairs, cane seat, walnut.....	1 50	21 00
One hundred and three chairs, cane seat, oak.....	1 00	103 00
Seventy-one chairs, perforated seat.....	00	42 00
Nine chairs, rockers, large.....	2 25	20 25
Seven chairs, rockers, sewing.....	1 50	10 50
Three chairs, rockers, carpet.....	4 50	13 50
Three chairs, children's high.....	1 25	3 75
Four chairs, children's small.....	75	3 00
One hundred and fifteen and one half yards carpet, parlor, dining, and Superintendent's room.....	1 50	173 25

INVENTORY—Continued.

ARTICLE.	Cost Price.	Market Value.
Two hundred and twenty-five yards carpet, sleeping rooms.....	\$1 12½	\$235 12
Thirteen and one half yards carpet, stairs.....	2 00	27 00
Twenty-three carpet mats.....	1 00	23 00
Seven curtains (chintz).....	2 00	14 00
One curtain (cotton flannel).....		2 50
Two curtains (lace).....	4 50	9 00
One commode.....		3 50
Three cuspidors.....	50	1 50
Four closets, portable.....	4 00	16 00
One clothes press.....		6 00
Sixteen clothes bags.....	80	12 80
Twelve combs.....	20	2 40
Four comb racks.....	35	1 40
Two combs, curry.....	75	1 50
Three casters, table.....	1 50	4 50
One churn.....		3 50
Two coffee mills.....	1 00	} 2 25
Two crumb pans.....	1 25	
Two crumb brushes.....	50	1 00
One cornpopper.....	35	70
Three colanders.....		50
Two cake turners.....	40	1 20
One candlestick.....	20	40
One cultivator.....		20
One cooler, water.....		12 00
Eleven cows.....		8 75
Four calves.....	45 00	495 00
Fifty chickens.....	7 50	30 00
Thirty-two cloths for tables (white).....	50	25 00
Two cloths for tables (colored).....	2 00	64 00
One chopping bowl.....	3 00	6 00
One coal box.....		1 50
One chest for flour (zinc lined).....		2 00
Two cutters for biscuits.....		6 00
Four coal scuttles.....		20
Two coal shovels.....	75	3 00
One cart (farm).....	15	30
One cleaver (meat).....		25 00
Cutlery, to wit:		1 50
Three carving sets.....	2 50	7 50
Three nutcrackers.....		2 00
Ninety-nine table forks.....	07	6 93
Two carving forks.....	40	80
Fifty-six plated forks.....	57½	21 00
Four bread knives.....	1 50	6 00
One hundred and forty-nine table knives.....	10	14 90
Four butter knives.....	25	1 00
One carving knife.....		1 25
Three chopping knives.....	75	2 25
One potato knife.....		25
One palate knife.....		40
One pair shears (office).....		65
Forty-seven dessert spoons.....	37½	17 63
Six iron spoons.....	10	60
Six kitchen spoons.....	20	1 20
Twenty-six tablespoons.....	50	13 00
One hundred and forty-seven teaspoons.....	25	36 75
Crockery:		
Ninety-six bowls.....		
Two bowls, sugar, glass.....	10	9 60
One bowl, sugar, china.....	1 50	3 00
Two bowls, sugar, stone.....		50
Twenty bowls, soup, china.....	25	50
Six bowls, large yellow.....	21	4 20
Sixty-six cups.....	25	1 50
Seventeen cups, agate.....	06	3 96
Four cups, egg.....	05	85
Two celery glasses.....	06	24
	1 50	3 00

INVENTORY—Continued.

ARTICLE.	Cost Price.	Market Value.
One cake dish.....		\$0 50
Four cruets, vinegar.....	\$0 20	80
Two chambers.....	35	70
Thirty-two salt cellars.....	02	64
Twelve dessert dishes, glass.....	00 $\frac{1}{4}$	75
Ten fruit dishes.....	2 00	20 00
Three fruit dishes, glass.....	2 50	7 50
One hundred and forty-one fruit jars.....	10	14 10
Ten goblets.....	08	80
One gravy.....		50
Fourteen jellies.....	04	56
Two jars, stone.....	50	1 00
One lemonade stand.....		1 50
Ninety mugs.....	04	3 60
One hundred and twelve plates, breakfast.....	08 $\frac{1}{3}$	9 33
Two plates, bread.....	12 $\frac{1}{2}$	25
One hundred plates, dinner.....	08 $\frac{1}{3}$	8 34
Twelve plates, meat.....	50	6 00
One hundred and twenty-five plates, pie.....	08 $\frac{1}{3}$	10 41
Twenty plates, soup.....	08 $\frac{1}{3}$	1 66
Four plates, pickle.....	35	1 40
Fourteen plates, individual butter.....	03	42
Fifty plates, tea.....	08 $\frac{1}{3}$	4 16
Fifteen pitchers.....	1 00	15 00
Two pitchers, toilet.....	1 25	2 50
Two plates, glass.....	3 00	} 6 50
	3 50	
Two plates, cream, glass.....	2 00	4 00
Two plates, cream, stone.....	60	1 20
Twelve pitchers, syrup.....	50	6 00
One pitcher, water.....		1 00
One pitcher, chocolate.....		2 00
One soup tureen, china.....		4 50
One soup tureen, stone.....		2 75
One hundred and thirty-five saucers.....	06	8 10
One hundred and twenty-nine sauce dishes.....	04	5 16
Two spoon glasses.....	1 12 $\frac{1}{2}$	2 25
Three soup dishes.....	10	30
Five porcelain shades.....	20	1 00
One hundred and nine tumblers.....	08	8 72
Two teapots.....	40	} 1 00
	60	
Ten toilet sets.....	2 50	25 00
Forty-eight vegetable dishes.....	60	28 80
One washbowl.....		1 00
Twenty-four wine glasses.....		2 50
Miscellaneous:		
One donkey and colt.....		30 00
Four desks (office)..... aggregate		61 00
Three desk rulers.....	75	2 25
One document case.....		30 00
Two dippers.....	20	40
Eight dustpans.....	15	1 20
Dry goods, etc.:		
Seven dozen buttons.....	12	84
Seven and three fourths yards calico.....	06 $\frac{1}{2}$	50
Twelve and three fourths yards canvas (duck).....	40	5 10
Five yards cheviot.....	11	55
Three hats (worn).....		75
Thirty yards bleached muslin.....	13 $\frac{1}{2}$	4 05
Twenty-eight and one fourth yards unbleached muslin.....	07 $\frac{1}{2}$	2 12
Forty yards sheeting.....	15	6 00
Six spools thread.....		28
Seventeen and one fourth yards ticking.....	15	2 63
Twenty-four yards toweling.....	10 $\frac{1}{2}$	2 52
Eight and one half yards toweling (glass).....	09 $\frac{1}{2}$	80
Four and one half yards wool flannel.....	40	1 40
Engine and boiler (six-horse power, eight-horse engine)..... aggregate		400 00
Engine and boiler (twelve-horse power, shafting complete)..... aggregate		800 00

INVENTORY—Continued.

ARTICLE.	Cost Price.	Market Value.
Two egg beaters		\$0 50
Four fire extinguishers		72 00
Furniture, parlor set consisting of eleven pieces, four vases, and three portraits of Governors		
..... aggregate		335 75
One American flag		15 00
One ice cream freezer		4 50
Three forks, toasting	\$0 30	90
One funnel		25
Three hundred and two fruit cans, tin	5	15 10
Three grate sets	1 12	3 33
One grater, large		50
One grater, nutmeg		25
Two gas lighters	75	1 50
One garden washer for spraying		2 00
One griddle		75
Gas generator, mixer, regulator, air pump, vault, weights and fixtures for one hundred and fifty light gasoline plant		1,150 00
Six horses		600 00
Twenty-eight hogs	10 00	280 00
Four halters	1 00	4 00
One harness, double, carryall		90 00
One harness, double, farm		50 00
Two harnesses, single		50 00
One harness, cart		10 00
One hundred and fifty feet hose, water	20	30 00
Two harrows		28 00
One hat stand		15 00
Forty-eight hand grenades		62 42
Six inkstands		9 00
Twenty-eight irons, smoothing	70	19 00
Four jelly molds	70	2 80
Three kettles, tea, agate	2 50	7 50
Seven kettles, chamber	60	4 20
Three kettles, coffee, agate	1 75	5 25
One kettle, water		1 50
One kettle, water, large		3 00
Two lamps, student	5 00	10 00
Four lamps, stand	2 00	8 00
Eight lamps, ordinary, glass	40	3 20
Two lamps, tin	40	80
Two ladders, fire	12 50	25 00
Three ladders, step	4 00	12 00
Five ladles	15	75
One letter press and table		11 00
One lawn mower		11 25
One hundred and fourteen and one half yards linoleum	90	103 05
One lantern, square		1 50
Four lanterns	1 00	4 00
Two letter boxes	50	1 00
Laundry equipment, viz.: No. 3 Troy washers, two mangles, extractor, starcher, drier, and shafting complete		1,623 75
One hundred and forty-two mattresses, hair	4 75	674 50
Ninety-eight mattress covers, knit	50	49 00
Thirty-one mattress covers, muslin	40	12 40
One hundred and fifteen yards matting, floor	25	28 75
Eighteen mirrors	2 00	36 00
Two magic lanterns and views		50 00
Three mats for doors	1 00	3 00
Three milk cans	1 75	5 25
Three measures for fluids		1 35
One map of California		5 60
Four mops	1 50	6 00
One meat chopper		2 00
Four hundred and fifty-three napkins	05	22 63
One organette		25 00
Two oil stoves	3 75	7 50
Eight oilcloth mats	1 00	8 00
Thirty-two yards oilcloth	50	16 00
Two pianos		400 00

INVENTORY—Continued.

ARTICLE.	Cost Price.	Market Value.
Two piano stools		\$10 00
One piano cover, rubber		4 00
One hundred and seventy-five pillows	\$1 30	227 50
Four hundred and fifty-seven pillow cases	40	182 80
One hundred and ninety-six pillow shams	20	39 20
One panel painting		2 50
Thirty pails, fire	50	15 00
Twelve pails, wood		1 50
Six pails, paper	33½	2 00
Two pails, zinc		1 00
Two pails, milk	50	1 00
Two pails, iron	75	1 50
Two pans, bread	60	1 20
Twenty pans, milk	30	6 00
Eight pans, dish	70	5 00
Seven pans, sauce, agate	65	4 55
Four pans, frying	50	2 00
Ten pans, dripping	40	4 00
Three pans, cake	35	1 05
Three pans, jelly	30	90
Eight pans, tin	20	1 00
Four pans, gem	25	1 00
One pan, iron		00
Three pots, coffee	1 25	3 75
Three pots, tea	1 00	3 00
One pump, brass, force		70 00
One pump, pulsometer, } equipped		330 00
One pump, pulsometer, }		
Two poker		30
One potato masher		25
One potato sieve		35
One apple parer		50
Fifty-seven picture frames	average 40	22 80
One plush panel (bracket piece)		2 00
One range		163 00
One railing for piano		21 50
Four robes for carriages	4 00	16 00
One rattrap		1 00
One rack of shelves		1 00
One repoussé piece (seal of State)		7 00
One rotary oven (Vale's)		540 00
Eighteen stoves, coal and wood, with pipe and fixtures	aggregate	285 50
One stove, laundry		30 00
Six screens for stoves, wire and zinc	aggregate	65 00
Four sewing machines	aggregate	125 00
Five hundred and twenty sheets, single	40	208 00
Thirty-nine sheets, double	60	23 40
One hundred and forty spreads	1 25	175 00
Four spreads, calico	75	3 00
Seventy-five straw ticks	60	45 00
Forty shades for windows	1 25	50 00
Two safes, wire, for meats	{ 8 00 } 10 00	{ 18 00 }
One settee, wood		3 00
Two surcingles	75	1 50
One scales, platform		14 00
One scales, balance		5 00
One scales, apothecary		8 00
Two safes, iron		72 00
Two sprinklers, lawn	1 50	3 00
One spider		30
Four strainers	25	1 00
One meat saw		50
One sieve		40
One large sieve		64
One agate steamer		1 50
Four skinners	25	1 00
Two shears	50	1 00
One sofa pillow		1 50

INVENTORY—Continued.

ARTICLE.	Cost Price.	Market Value.
Eight screens for windows	\$0 75	\$6 00
One hundred and four stools	40	41 60
Four skirt boards	2 00	8 00
One official seal		8 00
One stamp for tools		2 50
One stand for sprinkler		1 50
Supplies:		
Ten pounds dried apples	06	60
Fifteen pounds baking powder	39 $\frac{1}{2}$	5 98
Twelve pounds bacon	15	1 80
Thirteen pounds dried beef	14	1 82
Ten pounds white beans	02 $\frac{1}{2}$	23
Thirty pounds pea beans	02 $\frac{1}{2}$	75
Three boxes shoe blacking	04	12
Three packages stove blacking	85	2 55
Three wooden buckets	25	75
Two paper buckets	35	70
Four brooms	25	1 00
Eight whisk brooms	13	1 04
Three fourths box bathbrick	95	71
Two wall brushes	1 50	3 00
One stove brush		25
Two scrub brushes	20	40
Two shoe brushes	20	40
Five pounds corn meal	03	15
Ten gallons coal oil	20	2 00
Two boxes candles	2 50	5 00
Three papers chocolate	25	75
Thirty pounds codfish	07 $\frac{3}{4}$	2 32
Fifty pounds coffee	23	11 50
One hundred and twenty pounds crackers	05	6 00
Two cans corn		25
Six pounds cocoanut	29	1 74
Twelve papers cornstarch	08	96
Four cans condensed milk	25	1 00
Three hundred and fifty pounds copperas	02 $\frac{1}{2}$	9 68
Twenty-five pounds cheese	14	3 50
Drugs and medicines	estimated	30 00
One demijohn		75
Five barrels flour	4 50	22 50
Twenty pounds farina	04 $\frac{1}{2}$	90
Twelve papers gelatine	10 $\frac{1}{2}$	1 80
Five pounds ginger	19	95
Two hundred gallons gasoline	26 $\frac{1}{2}$	53 00
Twenty-nine pounds ham	15 $\frac{1}{2}$	4 50
One hatchet		70
Seventy-six tons hay	12 50	950 00
Fifteen pounds indigo	35	5 25
Thirty pounds lard	10 $\frac{1}{2}$	3 15
Nine bottles lemon extract	50	4 50
One case lye, American concentrated		4 00
Two pounds mace	85	1 70
Three kits mackerel	2 25	6 75
Ten pounds mustard	18	1 80
One barrel molasses		12 50
One half great gross matches		4 00
Two mop holders	15	30
One half pound nutmegs	68	34
Ten cans oysters	15	1 50
One oil can		40
Seven gallons oil, paint	60	4 20
Five gallons oil, lubricating	50	2 50
Two bottles oil, salad	50	1 00
Seventy-five pounds paint, white lead	06 $\frac{1}{2}$	4 88
One gallon paint, red		1 00
One quart paint, green		25
Two gallons paint, black, gasoline	1 00	2 00
One half gallon paint, boiler	1 00	50
Nineteen pounds putty	03	57

INVENTORY—Continued.

ARTICLE.	Cost Price.	Market Value.
Three paint brushes		\$1 20
Six pounds rubber packing	\$0 35	2 10
Two hundred and eighty-eight feet pipe, steam, one-inch	07	20 16
Forty-five feet pipe, steam, three eighths-inch	05	2 25
Fourteen feet pipe, water, two-inch	13	1 82
Ten feet pipe, water, one and one fourth-inch	10	1 00
Eleven packages pearline	15	1 65
Eighteen bottles peppersauce	20	3 60
Ten gallons pickles	30	3 00
Ten pounds prunes	08	80
Ten packages paper, toilet	15	1 50
Twenty pounds rice	05½	1 10
One half box raisins	2 00	1 00
Fifteen pounds sago	06	90
Ten cans salmon	23	2 30
Two salmon, smoked	1 40	2 80
Two hundred pounds starch, laundry	05	10 00
Two hundred and fifty-seven pounds sugar, granulated	07	17 99
One hundred and forty-eight pounds sugar, brown	06½	9 25
Twenty-five pounds sugar, pulverized	07½	1 88
Four cakes sapolio	10	40
One half box soap, laundry		2 25
One box soap, Purity		5 00
One bag salt, rock		1 70
Three hundred pounds sal soda	01¾	5 25
One hundred and fifty sacks	05	7 50
Forty-five pounds tea	27½	12 38
Twenty-five pounds tapioca	06	1 50
Three tongues		2 62
Ten bottles vanilla extract	35	3 50
One barrel vinegar		10 00
School supplies:		
Two Arithmetics	50	1 00
Two bells		2 50
Eight brooms (small)	10	80
Two books on calisthenics		1 00
One box beads (colored)		30
One lot blocks		25
One bass viol		21 00
One pair bones		20
One checker board		75
Five sets cups and balls		1 00
One chart (Bancroft's)		50
Three charts, alphabetical		1 00
One pair clappers		26
One cornet		20 00
Twenty-five desks (double)	4 00	100 00
Twenty desks (single)	2 50	50 00
Two desks, teacher's	5 50	10 00
Thirteen drawing books	10	1 30
Forty-three dumbbells, wood	30	12 90
Two pairs dumbbells, iron	50	1 00
One box dominoes		40
One drum		12 00
Eight form boards	50	4 00
One flute		7 00
Two Geographies		50
Twenty-four gospel hymn books	75	18 00
One lot glazed paper		50
One set games		50
One guitar and box		25 00
One globe		3 00
Twenty-eight ink wells	05	1 40
Eleven maps, Camp's	2 00	22 00
Three maps, United States, dissected		2 25
One map rack		12 00
Eight music books	75	6 00
Nine music books, "Song Wave"	40	3 60
Seven music books, "Voices of Nature"	50	3 50

INVENTORY—Continued.

ARTICLE.	Cost Price.	Market Value.
Seventeen music sheets.....	\$0 20	\$3 40
Twelve music stands.....	1 00	12 00
One Maypole and ribbons.....		4 00
Four puzzles and games.....	30	1 20
Three peg boards.....	10	30
Twelve penholders.....		20
Three sheets perforated card.....	20	60
One dozen pads, blotting.....		10
One half dozen pads, blackboard.....		60
Eighty-four Readers.....	20	16 80
One box rings, kindergarten.....		50
Eight rubber erasers.....		20
One lot sewing cards.....		1 50
One lot scrapbooks.....		2 00
Thirty slates, large.....	30	9 00
Eighteen slates, small.....	20	3 60
Two sets solitaire.....	25	50
Four spools silk, embroidery.....		80
One sand table.....		5 00
Six tables, kindergarten.....	1 50	9 00
One set toy money.....		25
One set tenpins.....		50
One trombone.....		15 00
Twelve writing books.....	06	72
One lot weaving mats.....		75
One lot weaving mats, rubber.....		75
Twelve wands.....		1 20
One lot words, alphabet.....		25
Four ounces worsted.....		60
Nine tables, dining room, ninety feet.....	1 00	90 00
Two tables, extension, twelve feet.....		24 00
Seven tables, kitchen.....	4 00	28 00
One table, library.....		20 00
Three tables, laundry, sixteen feet.....		16 00
Two tables, sewing, twenty feet.....		20 00
Twenty tables, stand.....	average	1 25
One table, school.....		3 00
Three tables, walnut.....	6 00	18 00
Two tables, workshop.....	4 00	8 00
Six tents.....	aggregate	60 00
Twelve tin plates.....	05	60
One toaster.....		40
One tub, portable bath.....		4 00
One table cover (fancy).....		2 50
Six towel racks.....		3 00
One tray.....		1 00
Three hundred and seventy-seven towels.....	06	22 62
Eighteen tin cups.....	05	90
Seven tin dippers.....	08	56
Tools, carpenter's:		
Two axes.....	1 25	2 50
One set brace and bits.....		3 00
Nine bits, extension.....	25	2 25
One bucksaw.....		1 00
One crowbar.....		1 75
Four chisels, cold.....	20	80
Five chisels.....		2 80
One chisel, nail.....		45
Two drawing knives.....		90
Two diamonds, glaziers'.....		10 00
One divider.....		30
One footbar.....		40
Two files.....		30
One grindstone.....		4 00
Two gauges.....	35	70
One gluepot.....		2 00
Two hammers.....	50	1 00
Three hatchets.....	75	2 25
One nail punch.....		10

INVENTORY—Continued.

ARTICLE.	Cost Price.	Market Value.
One oilstone.....		\$1 00
One oil feeder.....		40
Four planes.....	\$0 75	3 00
One pruning knife.....		30
One putty knife.....		15
One priers.....		25
One rivet set.....		1 00
Two squares.....		80
Five screwdrivers.....		75
Two try squares.....	40	80
One set square.....		40
One spokeshave.....		40
One spirit level.....		4 50
One sledge.....		1 00
Five saws.....		8 50
One pair compasses.....		70
One saw, 4-foot.....		4 50
One saw, buck.....		1 50
One saw, keyhole.....		50
One saw set.....		50
One vise.....		2 00
One washer cutter.....		1 00
Tools, machine:		
One anvil.....		17 50
One belt punch.....		75
One clamp, iron.....		1 25
One set dies and stock.....		12 50
One forge.....		24 00
Seven files.....		70
Two hammers, hand.....		2 00
One set hand drills, brace.....		3 60
Seventeen keys, blank.....		51
One oil can.....		40
One oil cup.....		35
Two pipe cutters.....		5 00
One pair pipe tongs.....		3 50
Two pairs pincers.....		1 50
One pinking iron.....		40
One pair shears.....		60
Two soldering irons.....		3 00
One saw, for iron.....		1 25
Two pairs tongs, for gas.....		1 50
One pair tongs, chain.....		7 00
Three pairs tongs, extension.....	3 50	10 50
One tap, die, and stock.....		16 00
One trowel.....		75
One vise, large.....		12 50
One vise, small.....		1 50
Two wrenches, extension.....	2 00	4 00
Two wrenches, monkey.....	1 75	3 50
Two wrenches, small.....		75
Two wrenches, screw.....	1 50	3 00
Two wrenches, hydrant.....	1 50	3 00
Tools, general:		
Two brush brooms.....	50	1 00
Two brushes, horse.....	50	1 00
One tube cleaner.....		75
Three hay forks.....		2 20
Seven hoes.....	50	3 50
One hoe, boiler.....		75
Two plows.....		18 50
Two pairs pruning shears.....		1 50
One pick.....		1 25
One planting bar.....		2 00
Three rakes.....	50	1 50
Five shovels.....	1 00	5 00
One spade.....		1 25
One scythe.....		1 25
One scythe, bush.....		1 25

INVENTORY—Continued.

ARTICLE.	Cost Price.	Market Value.
Two scrapers		\$1 00
One syringe for spraying		1 50
One sickle		50
Two wheelbarrows		8 50
One watering pot		1 00
Tools, repoussé:		
One sheet copper		1 70
Six clamps		1 50
One combination set		1 50
One chisel		20
One set carving, wood		4 00
Six mallets	\$0 25	1 50
Eight oak blocks	60	4 80
One soldering casket		2 50
One scroll saw		3 00
One rule		25
One repoussé set		4 00
One pair shears		75
One screwdriver		25
One mirror bracket		75
One tin box		25
One varnishing brush		15
Twelve vases	75	9 00
One washboard		50
One wringer		4 50
Four wardrobes, walnut	20 00	80 00
Seventeen washbasins, tin	20	3 40
One wagonette		500 00
One wagon, farm		125 00
One wagon, spring, double seat		75 00
Two buggies		150 00
One wagon jack		5 00
Eight washstands, wood	4 00	32 00
One washstand, iron		1 50
Ten waiters	50	5 00
Two woodboxes	4 00	8 00
Ten cords firewood	4 75	47 50
Aggregate		\$18,724 73

SANTA CLARA, CALIFORNIA, July 31, 1889.

To the Board of Trustees of the California Home for the Care and Training of Feeble-Minded Children:

The undersigned, your Auditing and Finance Committee, respectfully report that they have carefully examined the accounts and books of the Superintendent, and all and every transaction done and acted by him for the fiscal year ending June 30, 1889; and that we find the same correct, and the balances agreeing with those in the hands of the Treasurer and in his own hands at present. All agreeably to the reports hereto annexed and made part hereof.

We further certify that the books and accounts are well and admirably kept, and creditable to the officers of the institution, the Superintendent, Dr. Osborne, and the Clerk, Mr. Knapp.

Respectfully submitted.

(Signed:)

MRS. KATHERINE B. LATHROP,
President.
WILLIAM HARNEY.
CHARLES A. MURDOCK.

SIXTH ANNUAL REPORT

OF THE

BOARD OF TRUSTEES OF THE CALIFORNIA HOME

FOR

The Care and Training of Feeble-Minded Children.

FOR THE YEAR 1890.



SACRAMENTO:

STATE OFFICE, : : : : : J. D. YOUNG, SUPT. STATE PRINTING.
1890.

REPORT.

CALIFORNIA HOME FOR THE
CARE AND TRAINING OF FEEBLE-MINDED CHILDREN, }
SANTA CLARA, October 1, 1890. }

To his Excellency R. W. WATERMAN, Governor of the State of California:

GOVERNOR: In compliance with the laws of the State of California, we respectfully herewith submit to you our annual report as Trustees of of said institution.

We beg to refer you to the report of our Superintendent, Dr. A. E. Osborne, which is hereto annexed and made part hereof, for a detailed statement, which discloses all the requisite and necessary information required by statute governing in such matters, for your information and consideration.

The number of inmates in the institution on the thirtieth day of June, 1890, being the end of the fiscal year, was one hundred and twenty-five, divided as follows: Boys, sixty-nine; girls, fifty-six.

The total number of applications for admission amounts to several hundred. (See Superintendent's report.)

Again we beg leave to state that, owing to the crowded condition of the capacity of the institution in its present situation, we find it impossible to admit any more of the large number, as shown above, committed and applying to us for shelter, till we are relieved by the early completion of the new buildings on the recently acquired site near Glen Ellen, Sonoma County. When these buildings are erected and ready for occupancy, we will then be enabled to overcome the pressing claims on us to admit a large number of those already committed to us, and as much as possible meet the constant applications for admission from all parts of our State.

The sanitary condition of the institution during the year has been good—free from epidemic, and no illness, only such as is always incident to feeble children.

The great and most absorbing interest manifested by the Board of Trustees since the filing with you of our last report centers in the new site, recently acquired by purchase, near Glen Ellen, Sonoma County; a description, and all matters pertaining to it, we have in our last report laid before you. Since the filing of that report we have acquired the property, which embraces, as we have formerly stated, some one thousand six hundred and sixty acres of land, and for the sum of \$50,000, and its title having been duly examined, was passed upon as good and valid by the proper authority, the Attorney-General of our State, and possession given to us in the early part of last January. We desire to state that the sum of \$1,000 was generously donated to the Board of Trustees, for the use and benefit of the children, by Guy E. Grosse and J. E. Peters, the gentlemen from whom the property was purchased.

We regret to state we found this newly acquired property in a bad state of preservation. The place had been allowed to run down very

much in the past, particularly the orchards and vineyards, which were in such an uncultivated condition that, if allowed to remain so much longer, would render the same perishable, and of not much value for any future profit therefrom. This, together with the dilapidated condition of the fences surrounding the land, rendered it almost useless for that purpose. The dwelling house on the place, and the outhouses, all needed renovation for habitation. All those matters attracted our attention and consideration to place the same in as good condition as our means would permit, believing that in due time a source of revenue will be derived from the orchards and vineyards, and the farm generally, which will accrue to the benefit of the State. We had the orchards and vineyards thoroughly cultivated, and the trees and vines properly pruned, the dwelling house renovated, repaired, and furnished for habitation, all the outhouses put in as good order as possible, and the fences repaired as far as we could do so at present, and many other matters necessary to be done in and about the place. All these improvements entailed an expense of \$8,344 24, and the detailed items of disbursements for the same will be found in the report of the Superintendent, hereto annexed, to which we respectfully refer you.

We were long in deciding upon the form and details for the first building to be erected, delayed by our inclination to obtain all the necessary information and observations of other buildings suitable for an institution of this character. We secured plans and photographs of other and kindred institutions from various places in the United States, to aid and guide us in our judgment in adopting the best plan possible for this, our primitive institution on this coast, so as to meet all the wants and comforts, as well as all the requirements necessary for the inmates who are to permanently reside there in the future, and not going any further in the size and extent of the building, only as the limited means at our disposal would permit or allow, so that hereafter the full and complete buildings necessary and required (to meet the wants of the large number who are seeking admission to the same) can be allied to it without any impediments in the way for that purpose.

The plans and specifications for this new building were prepared by our architects, Messrs. Copeland & Pierce, and after a thorough inspection and consideration of the same on our part, met with our approval, as well as the approval of the State Board created for that duty. The proposals for bids, agreeably to the plans and specifications adopted, were advertised by us, as by law required, and the award or contract given to Mr. Andrew McElroy, of San Francisco, who was the lowest responsible bidder. Mr. McElroy immediately filed his bond and entered into contract with us to perform the erection and completion of the building. This latter also met the approval of the State authorities.

The contractor very shortly after commenced work on the place, excavating for foundations and the putting of the concrete foundations required, and the work of erecting the building now in progress, under the constant inspection of M. F. Redmond, a competent and highly recommended builder employed by us for that purpose, who, together with our architects, oversees that the contract is faithfully and well complied with, in all manner of materials used therein, and as our laws require in such matters. Our President and members of the Board of Trustees also watch the progress of the work from time to time. We are in

hopes that by the early part of the coming year to be able to find the building completed, so as to enable us to remove the children thither from their present location, for permanent residence.

We are also about to erect a much needed and necessary building as an adjunct to this main building, to be used and occupied by all cases of an epileptic character. We find from experience that such a habitation, separate and apart from the main building containing the milder form of cases, is not only requisite, but indispensable for the good and welfare of the institution. We are also, as far as our means will permit, about erecting a reservoir for the reception of water; the latter we have on the place in abundance, and of good quality, and to be conducted from a source of springs on the premises by pipes to the reservoir, giving to us sufficient fall to answer all purposes; and, further, to have a proper system of sewerage created, and such other requisites that may be found necessary and essential in and about the place, in as economical and workmanlike manner as the limited means at our disposal will permit. It will be seen that the total revenue to the State derived from our farm during the year amounts to the sum of \$3,138 40; less expenditures for labor, live stock, feeding thereof, plowing and seeding, \$1,520 11. It is expected that at our newly acquired property near Glen Ellen to be able to derive an income therefrom, which will be a source of revenue to the State, bearing in mind that at first considerable outlay is expected to place the property in a condition to derive a profit therefrom.

We beg leave to call your Excellency's attention to the appropriation allowed us by the last Legislature for the purposes of purchasing a new site and the erection of suitable buildings thereon. The sum appropriated was \$170,000, from which the sum of \$50,000 was expended in the purchase of the new site, and the balance—\$120,000—to be expended on the buildings. From this latter sum, some \$5,000 were expended in architect's salaries, attorney's fees, traveling expenses in search of a location, advertising, etc., leaving the sum of \$115,000 wherewith to defray expenses for the buildings now in course of erection, and from which other expenses are to be met, other than those for the buildings proper. With such a limited sum at our disposal we were only enabled to proceed to build but a portion of the contemplated buildings we required, agreeably to our plans adopted. These consist of laundry, bakery, kitchen, and dining-room building, together with a building adjacent for epileptic cases, capable only of accommodating from two hundred to three hundred inmates, necessary officers and attendants. We have at present one hundred and fifty inmates, officers, and attendants, and two hundred and thirty applications or commitments for admission on file. These, together with the additional applications constantly made to us from all parts of our State, and more applications that in the future we may reasonably expect, clearly shows beyond a doubt that the present buildings in course of erection will be very limited in capacity to accommodate or meet the wants of such a large number seeking admission therein. We therefore submit, under these existing facts, that the new buildings under our original plans should be erected as soon as possible, and which will be capable to meet the wants and accommodate all who seek admission. To complete the buildings proper, agreeably to the plans adopted, and in addition to those now in course of erection, we need what is known as an administration building, with two wings thereto—one for

boys and one for girls, and a boiler and engine room. The estimated cost of such, from a careful estimate submitted to us by our architects, will amount to about \$300,000. This will include the cost of radiators and heaters, as well as gas fixtures complete, with the additional sum of \$15,000 to furnish and supply the same for habitation. We deem the fences surrounding the property of no use, entirely worn out, and incapable of resisting an encroachment from cattle, and believe with an appropriation of \$15,000 we can surround the same (nearly 1,700 acres) with a good, substantial fence, also with inner cross-fences required, together with improving this valuable land and premises, which it needs very much, and thereby render it capable to become a source of revenue to the State, arising to a considerable extent from the labor of its inmates, believing that many of such who are physically able will be taught to labor on the farm, and in such other pursuits that will have a tendency to promote their usefulness and sanitary condition.

We desire to express to your Excellency our sincere thanks for the many acts of kindness, as well as the voluntary aid rendered us from time to time by you, and we believe you will find it a consolation, as well as a pride, in the future, that you had, in connection with your co-laborers in such work (ourselves), assisted to your utmost one of the most deserving of all charities, and aided in founding and building a shelter forever for those poor unfortunate and helpless of our human family.

All of which we respectfully submit.

KATHERINE B. LATHROP.
A. P. OVERTON.
GEO. W. GIBBS.
JULIA M. JUDAH.
WILLIAM HARNEY.

ANNUAL REPORT OF THE SUPERINTENDENT

OF THE

CALIFORNIA HOME FOR THE CARE AND TRAINING OF
FEEBLE-MINDED CHILDREN

TO THE

BOARD OF TRUSTEES, OCTOBER 1, 1890.

OFFICERS OF THE INSTITUTION.

DIRECTORIAL.

BOARD OF TRUSTEES.

MRS. KATHERINE B. LATHROP, President	Occidental Hotel, San Francisco.
MRS. JULIA M. JUDAH	San Mateo.
COL. WM. HARNEY	535 Market Street, San Francisco.
GEO. W. GIBBS	35 Fremont Street, San Francisco.
HON. A. P. OVERTON	Santa Rosa.

TREASURER.

HON. B. D. MURPHY	President Commercial and Savings Bank, San José.
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ATTORNEY.

HON. H. C. DIBBLE	405 Montgomery Street, San Francisco.
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SECRETARY.

DR. A. E. OSBORNE	Santa Clara.
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MANAGERIAL.

A. E. OSBORNE, M.D., PH.D.	Superintendent.
MRS. MARGARET PAXTON OSBORNE	Matron.
STEPHEN H. KNAPP	Clerk.
MISS EMMA WILLARD PECK	Kindergartner.
ALEXANDER L. KROPP	Teacher of music, etc.
MISS ANNA E. JONES	Supervisoreess.
MRS. JENNIE WILSON	Night Attendant.
MISS ADA E. CARNES	Attendant.
MISS LUCY MURDOCK	Attendant.
MISS JESSIE WATSON	Attendant.
MISS MARY PEARSON	Attendant.
MISS L. BREY	Night Attendant.
MRS. M. BUNDENSEN	Attendant.
NIELS BUNDENSEN	Attendant.
P. J. SOLY	Attendant.
MISS MAGGIE ROBINSON	Baker.
MISS BRIDGET CREEDON	Cook.
MRS. ELIZABETH ROBERTS	Laundress.
JOHN T. SHARPE	Engineer.
CARL L. CARLSON	Janitor.
GEORGE PALMER	Farmer.
JOHN COFFEY	Choreman.

AUXILIARY STAFF IN CHARGE AT GELSTON.

MRS. A. J. DOWNING	Housekeeper.
ROBERT P. HILL	Manager Agricultural and Horticultural Department.

REPORT.

SANTA CLARA, CAL., October 1, 1890.

To the Board of Trustees of the California Home for the Care and Training of Feeble-Minded Children:

MESDAMES AND SIRS: In accordance with the requirements of the law, and of your Board, I have the honor to submit herewith the following as and for my annual report of the operations of this institution for the fiscal year ending June 30, 1890, together with certain addenda brought down to October 1, 1890, which last are properly noted as they occur:

TABLE 1—MOVEMENT OF POPULATION FOR INMATES.

	Males.	Females.	Total.
Census of July 1, 1889	66	48	114
Admissions, July 1, 1889, to June 30, 1890	6	10	16
Total for year	72	58	130
Discharged	2	2	4
Died	1	8	9
Total to be deducted	3	10	13
Census of July 1, 1890	69	48	117
Admissions, July 1, 1890, to October 1, 1890	2	8	10
Total	71	56	127
Died	1		1
Present population (October 1, 1890)	70	56	126

Of this last number there are domiciled—

At Santa Clara—Males	63
Females	53
Total	116
At new site, Sonoma County—Males	6
Females	3
Total	9
At home on leave—Males	1
Total	126

Inmates Discharged.—Two males and two females were discharged during the year; of these, a few words are not amiss:

E. B., male, had been under our care two years and six months. When admitted he knew little or nothing of the ordinary school work, owing to his self-appreciation of his own defection, coupled with a sensitive disposition, that prevented him from obtaining any benefit from public or even private school instruction. His age was eight and a half years

at admission; he was in good physical health; was willing to learn, but bashful and diffident, and easily discouraged. He had never spoken, and could make only futile attempts at articulation. His memory appeared good and his perceptive faculties fair. On examination it was found that he possessed a certain malformation of the mouth and palatine arch that interposed an anatomical barrier to clear enunciation and precluded perfect speech. Great pains were taken, however, with his instruction, and particular stress was laid upon those lines of training that seemed to us best calculated to call out the fullest expressions of his mental forces, and at the same time increase his reliance upon and confidence in self-efforts. Under the painstaking drill of our teachers and attendants the work succeeded—slowly at first, then more rapidly, and at last proceeded far beyond the expectations of most of us, who realized how he was handicapped. At this stage of his development his family took him from the Home and placed him in the schools of their city, where he has since distinguished himself as a diligent and capable student, of average grade. We were very sorry to part with him (believing that still greater results might be accomplished with him), notwithstanding the fact that we realized he would be to the people of the State a forcible, tangible, positive evidence of the value of the educational benefits of the Home, and prove by living testimony, that cannot be attacked, what can be done with children of his class. His recovered speech, alone, should forever silence the stale rantings of “doubting Thomases,” who have opposed the claims of the feeble-minded, and belittled the very efforts that saved this boy. The results of our investigations into his progress since leaving the Home justifies us in declaring the improvement to be permanent. The chasm of imbecility has been spanned, and he has passed over to the bright land of an intellectual promise. In this instance, there arises strongly in our mind the oft-quoted and veritably prophetic utterance of the late Jas. B. Richards, in his remarkable story of the rescue of the idiot boy “Sylvanus”: *“If we can redeem one,” I said to Dr. Howe, “we will redeem them all over the country. We will open the doors so wide that every State shall pass an Act to found an institution for these unfortunates; and every intelligent being shall feel that it is a privilege to enter into this great work!”* The following record of this case I find upon the pages of our “Record of School Progress and Training.” The initials affixed are those of the teachers under whose care he was placed:

November 1, 1887 (eleven months after admission)—“Is always attentive and diligent. In writing is always careful to follow copy, and has just written his first letter. Is doing nicely in kindergarten, and making rapid progress.”—M. L. P.

December 1, 1887—“Reading in the First Reader. Cannot speak the words very distinctly, but is improving. Spells words of three and four letters. Is very faithful with his work, and ready to attempt anything required of him. Is now learning the multiplication table—writes the table of two’s perfectly.”—M. L. P.

January 1, 1888—“Department good. Has made perceptible improvement in reading. Articulates more distinctly, can add simple numbers readily, but has not yet learned to ‘carry.’ In articulation has learned the sound of ‘ch,’ can give the correct sound of the letter ‘u,’ and has learned other vowel sounds. In writing is also doing well.”—E. W. P.

February, 1888—“Continues doing well in all classes. During the past month has made good progress in numeration. In articulation has learned all the vowel sounds and is trying to put the parts of words together. Has mastered the letter ‘h,’ and, in fact, can give the sounds of nearly all the letters of the alphabet.”—E. W. P.

“Is doing well in calisthenics. Has learned to use the chisel with both hands in wood carving, and is improving as rapidly as can be expected.”—A. B. W.

September, 1888, to April, 1889—“Was in my class in arithmetic from September to January; was working in addition and doing nicely. In January came to me in reading and in writing. Doing well.”—A. E. J.

July, 1888, to April, 1889—"Was in my First Reader class until January, 1889. Up to that time made excellent progress. During same period was also in my kindergarten classes, and accomplished a great deal of good work. Can sew elaborate patterns, fold paper accurately and neatly; can follow almost any pattern in weaving. Has made good progress in articulation; is always ready to repeat a sound as many times as required day after day until he gets it. Can repeat sentences of eight or nine words without assistance, and makes an effort to talk with me in class. In arithmetic he endeavors to get 100 every day, which is given him if he adds the long examples without a single mistake. He is now about ready to take up subtraction. Is neat, systematic, attentive, and industrious in all school work."—E. W. Peck.

We close this remarkably satisfactory record with a copy of a letter written by him in July last to the teacher whose conscientious efforts were most responsible for his development. We wish we could reproduce the handwriting, which is quite good, legible, and characteristic, and we omit only the address:

—, CAL., July 13, 1890.

DEAR MISS PECK: I thought I would write to you and ask how all of the boys, girls, and teachers are out to the Home, as I have not had a chance to go out as the horse is out to pasture and I have no way to go.

I am out on my vacation now. I was promoted into the sixth grade, and I am getting along very well at school. Sometimes I beat the drum for the boys to march in by.

It has been very warm here for a few days.

I have a good deal of work to do at home, as I help the girls about the house.

I guess I will close, as I have nothing more to say this time, and will be pleased to hear from any of the teachers and children. Give my love to all.

Yours as ever,

E— B—.

The other discharge from our Boys' Department was that of F— S—, aged nineteen years. This was a high grade case, of peculiar nervous endowment, whose previous life had been characterized chiefly by erratic and passionate exhibitions of eccentricities. There had been an almost continuous history of chorea, which was quite marked on admission. He was a boy of highly honorable disposition and intentions, anxious to please and do right, but with so weak a self-restraining power within himself, that, without the sympathy and support of a stronger person, it was the easiest thing in the world for him to go wrong. He remained with us a year, continuing under physical, as well as mental treatment, and then left us to enter a school in the southern part of the State, preparatory to entering business. His subsequent course has been lost sight of, but we believe it to have continued satisfactory, as promised, or we would, in all probability, have been advised to the contrary.

The history of the discharges from the Girls' Department are not so flattering.

The first, A— R—, aged ten and one half years, was a confirmed epileptic of aggravated condition, whose retention in the Home had been greatly beneficial but not curative. She was with us nearly two years. During that time her disease had been placed under fair control, so that the spasms became less severe, and for awhile, less frequent. Towards the latter part of the time they consisted of temporary loss of consciousness, without falling or the exhibition of any contortion of face or body. Her epileptic record affords an interesting study, the consideration of which, however, may not be of special import in this connection. We introduce the following figures to show the irregular course of her disease.

Her papers stated, on admission, that she was subject to spasms at irregular intervals, but frequently to the extent of four or five a day. She was admitted in August, 1887, and her treatment was begun at once, with the following results:

September, 1887.....	Four spasms.
October, 1887.....	Two spasms.
November, 1887, to July, 1888, a period of eight months.....	No spasms.
July, 1888.....	Thirty spasms.
August, 1888.....	Thirty-four spasms.
September, 1888.....	Three spasms.
October, 1888.....	Nine spasms.
November, 1888.....	Twenty spasms.
December, 1888.....	Thirty-five spasms.
January, 1889.....	Twelve spasms.
February, 1889.....	Ten spasms.
March, 1889.....	Nine spasms.
April, 1889.....	Fifteen spasms.
May, 1889.....	Ten spasms.
June, 1889.....	Two spasms.
July, 1889.....	No spasms—discharged.

Her former irascible temper improved almost to the point of total disappearance. She kept fairly well along with her studies, and had her physique kept pace with her mental improvement, she would have become a marked case. As it was, her family considered her sufficiently improved to be kept at home, and we have heard of no unfavorable report since her discharge.

The last discharge was that of S— G—, aged twenty-seven years, an imbecile girl of lower grade, who was with us a year only. The utter neglect of any previous training, such as was suitable to her condition, made it a hard matter for us to do much for her in the short time she was with us. She had long passed the age at which school duties promised much reformation, and there were left only a few industrial pursuits suitable to her condition of mind and body. Subject to hallucinations; with a garrulous disposition, and possessed of sufficient intelligence to artfully formulate and shrewdly execute mischievous schemes, she was manifestly a dangerous person for any community outside of an institution, and a continued source of irritation inside of one. From circumstances over which we had no control, she was retained at home after the expiration of a certain leave of absence granted her. As a host of applicants were clamoring at our doors for admission, we could not, in manifest justice to these, retain her place, and her bed was given in consequence to another, even more in need of our care. That the career of S— G— since her discharge has been an unfortunate one, is evidenced by the fact that she was, a couple of months back, arrested, brought before Commissioners in Lunacy, adjudged insane (?), and formally committed to the State Asylum at Napa. The fact, incidentally, points to one of two conditions, both of which are of vital consequence to us as specialists in this particular field. Either she retrograded so rapidly after having been sustained a year by our methods that her retention by her family was little short of criminal negligence, or else Commissioners in Lunacy still fail to discriminate between the actually insane and the feeble-minded only.

TABLE 2—DEATHS, JULY 1, 1889, TO OCTOBER 1, 1890.

CAUSES.	Males.	Females.	Total.
Epilepsy.....	.....	2	2
Acute mania.....	.....	1	1
Meningitis.....	.....	2	2
Sequelæ, following measles.....	1	2	3
Progressive (general) atrophy.....	1	1	2
Totals.....	2	8	10

An Epidemic of Measles.—In the month of April last there appeared the first epidemic that the institution has known. Considering the number of our family, the tendency of their inherited or acquired weaknesses towards all diseases peculiar to the massing of human beings, and the risks of communication through our daily contact with the outside world, the long immunity of the Home from even the ordinary diseases of childhood is really remarkable. It has been, to all of us, a source of self-congratulation. During the past winter and spring measles existed throughout the valley and in the neighboring towns, and precautions were taken to guard against its introduction in the institution. The disease finally gained an entrance by being communicated by an attendant in the Girls' Department, who, a few days after her employment, was taken down with a hybrid form of the disease. She was at once isolated, and all precautions possible were adopted to prevent the spread of the affection. Our efforts were fruitless, however—one after another were taken down until nearly half our number were in bed. Lacking hospital facilities, the cases were treated in the general dormitories. The treatment in general was purely a sustaining one, with special regard to complications. The frequent unctions over the whole body of warm and pure olive oil proved particularly soothing, and resulted in marked benefit to the patient. The deaths noted resulted from secondary causes in children of very feeble constitutions, who succumbed to the strain much as they would have succumbed to any unusual and exhausting tax upon their frail vitality. The usual cases of bronchial irritation and inflamed eyes supervened, with more or less persistency.

TABLE 3—MOVEMENT AND SEX OF POPULATION OF INMATES, BY COUNTIES, ETC., JULY 1, 1888, TO OCTOBER 1, 1890.

COUNTIES.	July 1, 1888.	Admitted.	Dis- charged.	Died.	October 1, 1890.	Sex—October 1, 1890.	
						Males.	Females.
Alameda	12	5	1	2	14	11	3
Butte	1	0	0	0	1	0	1
Calaveras	0	1	0	0	1	1	0
Contra Costa	1	0	0	0	1	1	0
El Dorado	0	1	0	0	1	0	1
Fresno	1	0	0	0	1	1	0
Humboldt	1	1	0	0	2	1	1
Lake	1	0	0	0	1	1	0
Los Angeles	6	2	0	1	7	4	3
Marin	1	0	0	0	1	0	1
Monterey	1	0	0	0	1	0	1
Napa	2	0	0	0	2	0	2
Nevada	0	2	0	0	2	1	1
Placer	0	2	1	0	1	1	0
Sacramento	0	4	0	0	4	2	2
San Bernardino	2	2	0	0	4	4	0
San Benito	1	1	0	0	2	2	0
San Diego	0	4	2	0	2	1	1
San Francisco	37	23	4	3	53	23	30
San Joaquin	1	0	0	0	1	0	1
San Mateo	2	0	0	0	2	1	1
Santa Barbara	1	1	0	0	2	2	0
Santa Clara	8	2	2	2	6	4	2
Santa Cruz	1	3	1	2	1	1	0
Shasta	1	0	1	0	0	0	0
Sonoma	0	2	0	0	2	1	1
Stanislaus	1	0	0	1	0	0	0
Sutter	1	0	0	0	1	1	0
Solano	1	0	1	0	0	0	0
Tehama	1	0	1	0	0	0	0
Tulare	1	0	0	0	1	0	1
Ventura	2	2	0	0	4	3	1
Yolo	3	0	0	0	3	2	1
State at large	1	0	0	0	1	0	1
Hawaiian Islands	1	0	0	0	1	1	0
Totals	93	58	14	11	126	70	56

From the above it will be seen that the bay counties of Sonoma, Contra Costa, Alameda, Santa Clara, San Mateo, Marin, and San Francisco supply over 62 per cent of the population, and San Francisco alone over 42 per cent. San Francisco and Alameda Counties are represented by over 53 per cent of the inmates. Our applications now on file would vary these figures but little if they were included, but would place Los Angeles and the southern counties third in the list.

TABLE 4—THE CAUSES OF FEEBLE-MINDEDNESS.

So far as we have been able to ascertain from the incomplete histories obtainable in most cases, the causation of feeble-mindedness may be tabulated as follows:

KNOWN OR PRESUMED CAUSE.	Males.	Females.	Total.
Accidents and diseases of infancy:			
Convulsions	6	1	7
Cholera infantum	1	1	2
Falls		2	2
Measles	2	2	4
Partial drowning		1	1
Scarlet fever	1		1
Sickness, severe and prolonged	2	2	4
Congenital	27	22	49
Epilepsy	7	8	15
Epilepsy, with paralysis	1	1	2
Epilepsy, following meningitis		1	1
Epilepsy, following whooping-cough		1	1
Epilepsy, from use of tobacco and masturbation	1		1
Panama fever		1	1
Paralysis, general	1	1	2
Paralysis from fall		1	1
Paralysis, infantile	1		1
Relating to pregnancy:			
Accident to mother	1		1
Administration of chloroform to mother during dental operation			
Maternal impressions	1		1
Injuries received at birth	1		1
Physical and mental strain of mother	1	1	2
Premature birth (paralysis)		1	1
Shock to mother (grief, etc.)	1	2	3
Shock to mother (fright)	2	2	4
Relating to parental conditions:			
Alcoholism of parents	1		1
Feeble-minded father		1	1
Illness of parent at conception	1		1
Insanity of parents	2		2
Kinship of parents	1	1	2
Syphilis of parents	2		2
Relating to brain lesions:			
Inflammation of brain	2		2
Hydrocephalus	2		2
Meningitis (from accident)		1	1
Meningitis (basilar)	1		1
Shock to nervous system through retarded pubescence		1	1
Sunstroke		1	1
Totals	70	56	126

In the above table the term "Congenital" is used to denote all those causes, more or less obscure, operating at or about the time of birth, as well as those immediately preceding it. The matter of heredity plays an important part in causation, and we regret we cannot designate in a clearer way the effect of parental vices, and the violation of laws—moral as well as hygienic—that a just God will surely hold accountable for many of these dwarfed and crippled bodies and blighted minds. It is a significant fact that over 16 per cent of all under our care (including idiots) are epileptic. This does not include, however, those who of right belong to the epileptoid family of diseases. Were these to be included the percentage would be much larger: Over 19 per cent are epileptic and paralytic. Over 38 per cent are congenital. Over 16 per cent resulted from the accidents and diseases incident to infancy. Over 11

per cent were caused by troubles experienced during the pregnant state—over one half of them representing shocks and frights. What an unwritten history of mother's woes these statistics disclose! Over 7 per cent from depraved conditions of the mind and body of the parents previous to conception, represents but a part of the unfortunates—were the truth fully known—who have been brought into the world sinless and yet with the livid brand of sin upon them. Moralists and reformers can here find much material for lay sermons.

TABLE 5—AGES OF INMATES.

AGES.	Males.	Females.	Total.
Between 5 and 10 years.....	12	3	15
Between 10 and 15 years.....	22	10	32
Between 15 and 20 years.....	26	16	42
Between 20 and 25 years.....	7	13	20
Between 25 and 30 years.....	1	5	6
Over 30 years.....	2	9	11
Totals.....	70	56	126

TABLE 6—NATIVITY OF INMATES AND TOTAL ENROLLMENT FROM DECEMBER 10, 1885, TO OCTOBER 1, 1890.

NATIVITY.	Males.	Females.	Total.
Alabama.....	2		2
Australia.....		1	1
California.....	70	47	117
Colorado.....		2	2
Denmark.....		1	1
England.....	2		2
Germany.....		2	2
Hawaiian Islands.....	1		1
Iowa.....	2	1	3
Illinois.....	3	1	4
Italy.....	2		2
Kansas.....	1	4	5
Massachusetts.....		2	2
Michigan.....		1	1
Missouri.....	1	3	4
Mexico.....	1		1
Nebraska.....	3		3
Nevada.....	2	2	4
New York.....	3	4	7
New Jersey.....		2	2
Nova Scotia.....	1		1
Norway.....		1	1
Ohio.....	1	3	4
Pennsylvania.....	1	2	3
Rhode Island.....		1	1
Scotland.....	1		1
Switzerland.....		1	1
Unknown.....		1	1
Totals.....	97	82	179

TABLE 7--ORDINARY SCHOOL AND INDUSTRIAL DETAILS.

DETAILS, OCTOBER 1, 1890.	Males.	Females.	Total.
On farm	4		4
On garden and grounds	1		1
Absent on leave	1		1
In laundry	1	4	5
In school			
With cook	1		1
In infirmary	7		7
In dormitories	12	8	20
Chamber work		3	3
Sewing classes		15	15
Fancy work (see Table 8).			
With janitor	4		4
Dining-rooms		8	8
Totals	31	38	69

The above table must not be taken as indicating the only number able to work, according to the occupations indicated. Our purpose has been to train all the inmates, so far as they may be physically and mentally able, to some light, suitable, pleasing, and, at the same time, practical work, in order to stimulate them to, and to prepare them for, greater duties and responsibilities. The general working detail varies from day to day in numbers, and no one day's roster can truly reflect the correct industrial ability of our children. The following illustration will indicate more clearly the practical side of our training. Inmates have been trained to fill, and now do satisfactorily fill, the following positions at the saving of salaries indicated:

Gardening, etc., formerly filled by paid labor	\$25 00 per month.
Cook's helper, formerly filled by paid labor	20 00 per month.
Chamber work	20 00 per month.
Dining-room care, etc., formerly filled by paid labor	50 00 per month.
Laundry work	60 00 per month.
General house work, assistance	50 00 per month.
Baker's assistance, etc.	15 00 per month.
Value of boys' assistance at Gelston	50 00 per month.
Value of girls' assistance at Gelston	50 00 per month.
	<u>\$340 00 per month.</u>

We believe these figures below rather than over the mark, and have purposely placed them low to offset any possible criticism as to the character of the quality of assistance rendered, in comparison with paid labor. To many, the statement that the value of the work of our children is over \$4,000 per year, based upon current rates for paid service, may appear as a surprising affirmation. To those who are, however, familiar with the work, and believe as we do, that under proper conditions a part of our children may be trained to very largely support the other part, there will be occasioned no surprise, but a pure gratification that our Home has made, thus early in its existence, such valuable progress towards the practical realization of some of our assertions. Let it be further borne in mind that the above estimate does not include the value of the work of our children in the sewing classes, fancy and ornamental work, and the assistance of a few advanced in the school-room, without which it would be necessary for us to employ paid service for the work done.

TABLE 8—SCHOOL ROSTER.

The following table will be of interest, as exhibiting the studies pursued, and the number in each class:

STUDIES.	Boys.	Girls.	Total.
Alphabet.....	12	7	19
Arithmetic—Numbers.....	18	13	31
Addition to fractions.....	9	9	18
Fractions.....	1	—	1
Articulation—First efforts.....	2	2	4
Pronouncing in one syllable.....	2	—	2
Short sentences.....	3	1	4
Art and Decorative Work—Crocheting.....	—	5	5
Drawing.....	6	7	13
Etching.....	—	14	14
Paper folding.....	3	4	7
Hemstitching.....	—	4	4
General needlework.....	—	15	15
Embroidery.....	—	3	3
Fayal (drawn) work.....	—	2	2
Kindergarten—Stick laying.....	—	—	—
Bean laying.....	18	8	26
Peg boards.....			
Tablets.....			
Sewing and weaving.....	20	9	29
Lessons in color and form.....	17	12	29
Games.....	19	5	24
Ornamental.....	1	2	3
Penmanship—First lessons.....	14	7	21
Spencerian copy, 1 to 7.....	8	7	15
Reading—First Reader.....	7	6	13
Second Reader.....	4	2	6
Third and Fourth Readers.....	8	11	19
Evening School—Miscellaneous (mainly for children unable to attend during the day because of other work).....	16	22	38
Classes in music, vocal and instrumental:	—	—	—
Brass band—Piccolo.....	—	1	1
Cornets—1st and 2d B flat.....	1	2	3
Trombones—alto, 1st and 2d.....	1	1	2
Trombones—tenor, 1st and 2d.....	2	—	2
Tubas—1st and 2d.....	2	—	2
Cymbals.....	1	—	1
Drummers.....	2	1	3
Lyre.....	1	—	1
Brass band—Second Grade—Clarionet.....	1	1	2
Cornets.....	2	1	3
Orchestra—Cornet.....	—	1	1
Flute, etc.....	—	1	1
Cello.....	—	1	1
Violins.....	1	2	3
Piano.....	—	1	1
Clarionet.....	1	—	1
Trombone.....	1	—	1
Xylophone, bells, etc.....	1	—	1
Drum.....	1	—	1
Double bass.....	1	—	1
Vocal music.....	3	9	12
Calisthenics—Classes.....	15	7	22
Repoussé.....	6	—	6
Wood carving.....	3	—	3
Scroll saw.....	3	—	3
Geography, Elementary.....	6	8	14
History, United States.....	5	8	13
Dictation.....	5	7	12
Objects.....	6	8	14

TABLE 9—DONATIONS—JULY 1, 1889, TO JUNE 30, 1890.

July, 1889.

A. R. Woodams, Santa Clara: Two boxes of peaches.
 B. Hicks, Santa Clara: Twelve fans.
 Miss Peck, Institution: Large picture book.
 Pennsylvania Training School for Feeble-Minded Children, Elwyn, Pa.: Twenty-four pillow shams, with worked designs.
 Mrs. Katherine B. Lathrop, President: Large assortment of neckties for boys, and beads for girls.
 M. Morgenthau, San Francisco: One box (gross) white toilet soap.
 Jos. Sanders, Superintendent California Industrial Home for the Adult Blind: Lot of brooms and brushes.

August, 1889.

Mrs. A. McDonald, San José: One dozen fancy picture cards, one fancy cardboard cross, one package transfer pictures, two linen collars, and one package of beads.
 Miss Peck, Institution: One white skirt (for C. H.).
 Mr. A. R. Woodams, Santa Clara: One box of peaches, two boxes prunes, one box egg plums, and one box choice plums.
 The Misses Pierce, Santa Clara: Large quantity (wagon load) of pears.

September, 1889.

The Misses Pierce, Santa Clara: Two wagon loads of pears.
 Mr. A. R. Woodams, Santa Clara: One box table grapes.
 Miss L. Brey, Santa Clara: One sacque.
 Mrs. K. B. Lathrop, President: Four large, framed pictures.

October, 1889.

Mrs. H. M. Jessup, San Francisco: Nine linen collars.
 Mr. A. R. Woodams, Santa Clara: Two boxes grapes.
 Mr. Albert Harris, Santa Clara: One box quinces and several boxes apples.
 Pennsylvania Training School for Feeble-Minded Children, Elwyn, Pa.: Six hammocks.

November, 1889.

Mrs. H. L. Dodge, San Francisco: Quantity of boys' clothing, and large box of shells and curios from Mexico.
 Mr. A. R. Woodams, Santa Clara: One box dried apricots.
 Mrs. E. A. Yard, Santa Clara: Several boxes of table grapes.
 Mrs. K. B. Lathrop, President: Fifty pounds of candy.

December, 1889.

Special, and applied to Christmas Fund. (See Table 12.)

January, 1890.

Mr. S. C. Higgins, Santa Cruz: Girls' clothing.
 Mr. W. C. Badleau, Monrovia: Girls' clothing.
 Mr. S. H. Knapp, Institution: Boys' clothing.
 Mr. W. G. Brown, San Francisco: Package of pictures.

February, 1890.

Mrs. A. L. Brewer, San Mateo: Two bolts of ribbon for girls.
 Mrs. K. B. Lathrop, President: One linen tablecover.
 Mrs. S. D. Baker, Virginia City, Nevada: Half dozen assorted remnants of baby ribbon, twenty-four bundles zephyr, six paper embroidery patterns, one white apron, one perforated motto, fifty-four skeins of silk, one package silk scraps, two pieces silver board, one and a half yards mohair cloth, ten pieces canvas, one outlined splasher, five pattern books.

March, 1890.

Mrs. — Campbell, Sonoma City: Quantity of children's clothing.
 Mrs. K. B. Lathrop, President: Eight vases (for Gelston).

April, 1890.

Mrs. S. D. Baker, Virginia City, Nevada: One package of yarn, one white apron.
 Mrs. George F. Taylor, San Francisco: Quantity of girls' clothing.
 Mrs. George Hamilton, Oakland: Quantity of girls' clothing.
 Mrs. K. B. Lathrop, President: Eight vases, two decanters (for Gelston).

May, 1890.

Mrs. A. J. Snodgrass, Ventura: Quantity cards, toys, and picture books.
 Miss Carrie Warburton, Santa Clara: Quantity flowers and toys.
 Mrs. A. M. Moore, San Francisco: Several unbound volumes of "Harper's Magazine," and illustrated papers.

Mrs. K. B. Lathrop, President: Forty yards outing flannel for girls' dresses, two packages tooth powder, one sewing machine, one tidy, paper and papering one room (for Gelston).

June, 1890.

Loyal Legion, Santa Clara: Picture cards and flowers.

Mrs. A. M. Moore, San Francisco: One box of books.

Mrs. K. B. Lathrop, President: Fifty pounds of candy.

TABLE 10—EXHIBIT OF WORK DONE BY SEAMSTRESS AND SEWING CLASSES FOR YEAR ENDING JUNE 30, 1890.

ARTICLES.	Number.
Aprons	69
Basque	1
Bed pads	20
Bed spreads	24
Bed ticks	69
Blankets (hemmed)	12
Blouses	3
Bureau cover	1
Canisoles	7
Chemises	2
Clothes bags	14
Combination suits	12
Curtains	21
Doylies	7
Drawers (pairs)	85
Dresses	46
Embroidered altar cloths	2
Flannel sacques	5
Flannel skirts	14
Handkerchief case	1
Iron holders	28
Mattresses (renovated, and restitched, and tied)	45
Mattresses (stitched)	9
Napkins (cotton flannel)	171
Napkins (linen, etc.)	158
Nightgowns	29
Nightshirts	3
Outlining	14
Pillow	1
Pillow cases	254
Plain hemming	39
Shams outlined	2
Sheets	183
Stand cover	1
Suits (boys' ordinary)	1
Suits (boys' "Pinafore")	12
Table cloths	25
Table scarf	1
Tea towels	35
Towels	363
Waists	5
Window shades	37
Total	1,811

Besides the above, there were one hundred and thirty-four days devoted to patching, mending, and general repairs—an average of over eleven days each month. The table does not, further, include the large quantity of fancy work, knitting, sewing, embroidery, outlining, etc., done for the holiday season, and for which the months of November and December were largely taken. This exhibit was especially meritorious both as to variety and quantity, and served practically to demonstrate in a pleasing way the handicraft of the children in those lines of work.

The present instruction in hand and machine sewing is designed to

be preparatory to the formation of a class of seamstresses and tailors, who, hereafter, under the direction of a competent forewoman, shall do the mending and the making for the whole institution. The utilization of inmates of this class for these and other pursuits in the institution should not be contrasted with the labor in the same line of regular artisans. In the latter instance it is the result of competition in the struggle for existence, in which the best skill commands the best pay. In the former case it is the utilization of what otherwise would be not only waste elements of society, but also consuming, destructive elements, without any compensation for the destruction or consumption. In this light, therefore, any practical results attained must necessarily be considered as profit—profit to mind and soul, as well as from hands.

TABLE 11—PER DIEM AVERAGES OF COST OF MAINTENANCE, ETC., FISCAL YEAR.

MONTH.	Total Expenditure.	Per Diem Expense.	Per Diem Average of Inmates.	Per Diem Cost Per Inmate.	Per Diem Average of Population, Includes Staff.	Per Diem Cost—Whole Population.
1889—July	\$3,087 04	\$99 55	112	\$0 88	142	\$0 70
August	3,605 81	116 31	117	99	152	76
September	2,822 42	94 08	117	80	148	63
October	2,764 03	89 11	118	75	150	59
November	2,936 22	97 67	119	82	150	65
December	2,415 87	77 93	118	66	149	52
1890—January	2,300 50	74 21	120	61	151	49
February	2,470 70	88 24	120	73	151	58
March	1,790 64	57 76	119	48	145	40
April	1,989 56	66 31	115	57	143	46
May	1,942 98	62 67	115	54	141	43
June	2,248 44	74 94	116	64	143	52
Averages	\$2,531 18	\$83 23	117	\$0 70	147	\$0 56

A comparison of the above table with our statistics for 1887 and 1888 will show that our per capita expense has been greatly reduced. The figures above include certain items of extraordinary expense that ought not to be included in computation of maintenance, but are instead items of equipment, furnishing, and building. As will be seen elsewhere among the financial tables, the principal items of extraordinary expense were:

Work on cleaning cesspools	\$100 00
Purchase of stock	200 00
Insurance	146 94
Sinking well at laundry	258 63
Erection and equipage of bakery	1,012 49
Other extraordinary expenses	450 00

Amounting in all to \$2,168 06

Deducting this amount, we have, on comparison, the result as shown below :

YEAR.	Average Monthly Expense.	Average per Diem Cost.	Per Diem Average of Inmates.	Per Diem Cost per Inmate.	Average Whole Populat'n.	Average Cost per Whole Populat'n.
1887-1888	\$2,128 25	\$69 75	87	\$0 80	109	\$0 63
1889-1890 (in full)	2,531 18	83 23	117	70	147	56
1889-1890 (extra expense excepted)	2,350 51	76 43	117	65	147	52

In considering the per capita expense of this institution, in comparison with other institutions, the educational feature of the work and its consequent additional cost, over care that is purely custodial, must not be lost sight of, but duly computed. A larger staff must be maintained than would be required for simply custodial purposes, and in order that the children may be properly drilled, schooled, and trained to useful habits, the salaries for these additions to the general staff must be sufficient to properly recompense for the said tact, experience, and quality of ability furnished. Besides, the general armamentarium of a school—books, maps, apparatus, furniture, etc., must be provided at a certain yearly outlay. It was never designed, even from the beginning of the work, that our specialty should be classed or managed on lines parallel to the simple custody of the insane, for instance, nor has it been ever expected by the leaders in the work that it could be carried on quite as cheaply per capita.

TABLE 12—CONTRIBUTIONS (OTHER THAN CASH) TO CHRISTMAS FUND—1889.

Goodyear Rubber Co., San Francisco: Five rattles, thirty-one balls, two rings, two bird images (all rubber).

Maurice O'Brien, San José: One box (fifty pounds) candy.

Messrs. Will & Finck, San Francisco: Two large picture books, one small picture book, two toy animals, one dissected (toy card) house, two toy bureaus for dolls, one box agate marbles, four assorted horns, popgun, two musical (toy) instruments, two whirling jacks, one pair bones, three wooden toys, one toy village, one box animals and birds, one large horn, two large dolls, two kaleidoscopes.

Messrs. G. Verdier & Co. (City of Paris), San Francisco: Eight pairs colored stockings (ladies'), one dozen assorted handkerchiefs, eight dress patterns, assorted fabrics.

Mrs. Rosa Valente, San Francisco (special gift): One tin boat.

Sherwood & Sherwood, San Francisco: One dozen 2-pound glass jars of jams.

George Beaver, Santa Clara: One bushel walnuts and one bag of dried fruit.

William H. Haydock, San Francisco: Eleven books (picture), six rubber balls.

George A. Hamilton, Oakland: One medium sized doll, one small doll, one fancy basket, three handkerchiefs, bag of candy (special gift); two books (picture), three small dolls (institution gift).

Mrs. George F. Page, Oakland: One tin horse and rider, one tin wagon, two tin trumpets, six picture cards, two harmonicas, two Noah's arks, one chime, one ball tosser (musical), one sailor boy (doll), one dress (doll).

Boys and Girls' Aid Society, San Francisco (special gift): Five handkerchiefs, one book.

W. A. Tyson, Woodland (special gift): One Chatterbox (book), one game.

Miss Mattie Manning (special): Three collars, one tie, two shirts, one hat.

Miss Nannie Gregg, Lakeport (special gift): One cup and two pairs of stockings.

George W. James, San José: One package of nuts, one paper of candies.

Mrs. P. Geary, San Francisco: One box fine cakes and candies.

M. Morganthau, San Francisco: One dozen hand-satchels, one dozen skipping ropes, one box toilet soap, two dozen sets knives, forks, and spoons, one dozen large dolls, one dozen No. 3 tool chests, two dozen sets building blocks.

Levi Strauss & Co., San Francisco: One box apples, one box oranges, one box nuts, one box candy.

Christian Borger, Campo Seco (special gift): One suit of clothes.

James Kerr, San Jacinto (special gift): One pair stockings.

Samuel Folks, San Bernardino (special gift): One box writing paper, one box candy, one necktie, one silk handkerchief, one box pencils and pens, one box paints.

A. Vander Naillen, San Francisco (special gift): One pair of shoes, one jersey, one corset, one red dress skirt, two pairs wool stockings, one game (fish pond), one yard ribbon, one small portfolio, five kindergarten cards, one ornament with pencil, pen, and ruler.

Lottie and Rina Vander Naillen, San Francisco: One dressed doll, one woolly sheep, four horns, one portfolio, two shell ornaments, one string of beads, three toy watches, seven blocks.

A. Carminatta, Sonoma City: One cake, one bag assorted nuts, two boxes (ten-pound) candy, one box apples and pears, one deck playing cards.

Sarah and Isaac Moss, San Francisco (special gift): One box nuts and candy, one breastpin (gold), one yard pink ribbon, one white apron, three collars, seven handkerchiefs, three pair stockings, one knit shawl.

Mrs. F. G. Weidemuller, San Francisco: Two packages (special gifts), one necktie, one book, one plush box, with brush, comb, and glass, one box candy.

Mr. and Mrs. B. V. Weeks, Pescadero (special gift): Handkerchief.

S. Foster & Co., San Francisco: One bag of nuts.

G. E. Hooper, Antioch, Cal. (special gift): Small box almonds, bag of candies.

- Unknown: Twenty bottles fancy cologne for girls.
- Agnes Kirschner, San Francisco (special gift): One fancy dress, one white apron, one pair slippers, one pair shoes (worn), two pair kid gloves (worn), one pair stockings, two books, and four yards ribbon for institution.
- Samuel W. Springer, San Francisco (special gift): One pair shoes, three handkerchiefs, two yards ribbon, one yard ruching, one box candy.
- Mrs. N. D. Fuller, San Francisco (special gift): One book.
- Mrs. Eli Tinklepaugh, San Bernardino, Cal.: One box candy.
- Mr. George Hyde, San Francisco (special gift): One basket of candy, two neckties.
- Mrs. Camilo Martin, San Francisco (special gift): One pair cuff buttons (gold), one collar button (gold), one pair sleeve buttons.
- B. Katschinski & Co., San Francisco: Twelve autograph albums, one basket of candy, one bag of cakes.
- Mrs. Elihu Wright, Santa Cruz (special gift): One harmonica, one paper of candies, two handkerchiefs, one map, one album of picture cards, one card.
- Mrs. A. McDonald, San José: One gun and one drum (special), five banner pictures, five large advertising pictures, one small ditto, one plaque.
- Miss Compton and Mrs. McDonald, San José: Two Christmas stockings, one game, eight Testaments, eight books, one dozen autograph albums, one checker board, eleven illustrated story books.
- Mrs. N. T. Field, San Francisco (special gift): One parrot (toy), one bull, one set parlor tennis, one package.
- Rev. Mr. Easton, Berkeley: Thirty-nine cards.
- Farmers' Union, San José: One box nuts.
- Mrs. W. J. Haskell, Oakland (special gift): One box assorted cakes, candy, and fruit.
- Mrs. A. L. Thompson, San Francisco (special gift): One package picture cards, two aprons, scrap book, and package candy.
- Mrs. Sarah E. Dorr, Stockton (special gift): One picture book.
- Unknown: Christmas number "London Graphic," three chromo lithographs.
- J. Cereghino, Santa Clara: Six bunches celery, one box apples.
- Mrs. B. D. Miller, Sacramento (special gift): One woolen dress, one picture, one picture card, one linen picture book, one paper picture book.
- Mrs. S. J. Peterson, San Pedro (special gift): One large cake.
- Mrs. W. A. Sale, San Pedro (special gift): One scent bag, one Puss in Boots, one autograph album, one doll's bonnet, three pairs doll's stockings, one bag candy. For institution: Eleven autograph albums, five linen picture books.
- Miss Gertrude Clough, Los Angeles: One Christmas card, one initial handkerchief, two small handkerchiefs, one box candy, nuts, and fruit.
- Mrs. P. Grace, Madera (special gift): Three pair of stockings, four handkerchiefs, two wool shirts, and small box of candy.
- Mrs. E. T. Linn, Ventura (special gift): One scent bag, two handkerchiefs, two pair of stockings, one pair of shoes.
- Mrs. W. J. Webster, Hydesville (special gift): One yard of ribbon, one Christmas card, one half dozen white handkerchiefs, one white apron.
- Mrs. Laura A. Kennedy, Oakland: Eight large picture books.
- Mr. John Church, Hueneme (special gift): One pair of shoes, one jersey suit.
- Mrs. Martha Bridges, San José (special gift): One pair of stockings, six handkerchiefs.
- Mrs. C. Waldeyer, Oroville (special gift): Twenty-five oranges, one package of maple sugar, one package of candy, one package of almonds, one package of fancy cakes, one rubber ball, one package of colored beads.
- Mrs. W. C. Curtis, San Bernardino, (special gift): One dozen oranges, one package of dried figs and nuts, box of candy, one bag of raisins, three pair of woolen socks, necktie, and suspenders.
- Lillie Kelsey, Maynards (special gift): Six Christmas cards.
- Mrs. William Alley, San Francisco (special gift): One knit wool skirt, one pair of shoes, one piece of ribbon.
- A. R. Woodams, Santa Clara: One chicken, one box of dried apricots.
- Mrs. T. A. Harms, Pleasanton (special gift): One gold ring, one pair of shoes, two night dresses, two handkerchiefs, one bologne sausage, cash, 50 cents.
- Oliver Eldridge, San Francisco: Three large chromos, Christmas number "Illustrated London News," one box of oranges.
- Frank J. Maguire, Santa Barbara (special gift): One half dozen handkerchiefs, one third dozen stockings, one large agate, one tin cup, four personal gifts.
- Miss Lillie Pardon, Monterey (special gift): Three knit skirts, one knit cape, two books.
- Mrs. Mary Giles, San Francisco (special gift): Two handkerchiefs, one skirt, two collars, one tie, one toy trombone, one package of candy.
- Mrs. Maria Peterson, Napa City (special gift): One shoulder shawl, two handkerchiefs, one white apron.
- Mrs. W. H. Haydock, San Francisco (special gift): One Christmas card, one pair knit slippers, two pair stockings.
- Adolph Hirsch and wife, San Francisco: One box mixed crackers.
- Mrs. Cochran, San Francisco (special gift): One book.
- Mrs. Eichbaum, San Francisco (special gift): One book, one bag candy.
- Jos. Hopkins, San Francisco (special gift): Three coats, two pair pants, two vests.
- Mrs. Ann Busted, San Francisco (special gift): One (Japanese) box candies, one pair socks, one suit of clothes, two handkerchiefs, one book.

Mrs. Geo. Taylor, San Francisco (special gift): Two pair black stockings, two ribbon bows, one lace bow, two handkerchiefs, one pin cushion, one box candies, one Japanese box, one knife, one pencil, two Christmas cards, one package advertising cards, one dozen miniature calendars, court plaster books.

Unknown, San Francisco: One box oranges.

W. S. Kreutzman, San Francisco (special gift): Two night dresses, one worsted dress, three pair stockings, three handkerchiefs, two aprons, two yards velvet ribbon, three yards ribbon, four buttons, one bottle perfumery, twenty-seven picture cards, two Christmas cards, three advertising books, two Duke's shadow albums, six Japanese boxes candy, writing paper, envelopes, fancy cards, two lead pencils.

Mrs. Kate T. Haines, Oakland (special gift): One pair reins, one iron horse and wagon.

Jones' Bazaar, Oakland: One dozen harmonicas, one dozen toy watches, one half dozen dolls.

M. M. Everson, Oakland: One dozen pocket knives.

J. Young, Oakland: One pair boys' shoes.

M. H. Coffee, Oakland: Two handkerchiefs, one pair buttons.

Mr. H. Bankhead, Oakland: One handkerchief, two pair stockings, one doll.

L. Stien, Oakland: One half dozen pocket books.

Murphys, 853 Broadway, Oakland: One pair child's shoes.

H. Alexander, Oakland: One pair of shoes.

E. P. Taylor, Oakland: Ten dolls, two paint boxes, three rattles, two horns, five books.

Mrs. J. O'Kane, San Francisco: One box apples, nuts, and candies.

Antone Fatjo, Santa Clara: One box fancy crackers.

Mrs. N. D. Fuller, San Francisco (special gift): Two check waists, one handkerchief, one harmonica, one trumpet.

Thos. J. Hannan, Los Angeles, California (special gift): Two ties, two silk handkerchiefs.

R. H. Hatch, Half Moon Bay (special gift): One white dress.

Jos. A. Hoffman, San Francisco: One box Christmas cards.

M. F. Redmond, San Francisco (special gift): One walking turtle, two balls, primer, box of blocks, cravat, Christmas cards.

Herman Werner, San Francisco (special gift): One box candies.

Jas. Doleyse & Co., per G. J. Fuchs, San Francisco: Two pairs stockings, one handkerchief, one bag nuts, two bags raisins, one bag candy, four picture books (special gift), one Christmas number "Puck," 1887, one Christmas number "Sporting News," 1887.

Mrs. M. Perry, Monterey (special gift): Two yards ribbon, one white apron, two bordered handkerchiefs, one pair stockings, one small fruit cake, one bag candy.

J. Cleary, San Francisco (special gift): One dressed doll, one bag candy.

Christian Borger, Campo Seco (special gift): Two flannel undervests, three flannel overshirts, one pair cotton flannel drawers, one pair reins, several bottles jam, one lot of cakes, four large cakes, one jar preserves, twenty oranges.

Mr. and Mrs. J. Harris, San Francisco (special gift): One waist, one pair shoes, one pair stockings, candy, nuts, and cakes.

A. J. Snodgrass, Ventura (special gift): One purse, one harmonica, one spinning top, rubber ball, one pair slippers, one package candy, one toy pistol.

Nathan, Dohrman & Co., San Francisco: Forty-five Christmas tree ornaments, twenty-four mugs, eight fancy cards, one picture on glass, one small picture, one small fancy dish, twelve small cups and saucers, nine ornaments.

Hugh Hamilton, Oakland: One Christmas cake, one package jumbles, one package sugar cakes, three packages mixed cakes, two large tin horns, four medium tin horns, four dolls, two humming tops, three jumping jacks, one plaque, three tin toys, one box paints, one book (special).

John Hoerl and family, Stockton: One pair shoes, two pair woolen stockings, ribbon, one fancy apron, one bottle cologne, two handkerchiefs (special gift), one small bag candy, and one small bag nuts (institution).

Mrs. Katherine B. Lathrop, San Francisco (special gift): Twenty-four silver bracelets.

Mrs. Isabella Jones, Fullerton (special gift): Two and one half yards ribbon, one book, 50 cents cash.

Messrs. E. H. Guppy & Son, San José: One express wagon, one baby carriage, two wheelbarrows, six wire bracket easels, one metal easel, three picture holders, eight boxes paints, four china mugs, five (agate) marbles, three Chinese baskets, two workboxes (furnished), eight School Companions, one school basket, four school bags (macrema), three sets Hill's alphabet blocks, four picture cards, three Mother Goose melodies, photograph, with easel; eight autograph albums, two small photograph albums, one medium photograph album, one writing portfolio, five Christmas books, eighteen large Christmas cards, eight small Christmas cards (perforated), two small Christmas books, two workboxes (furnished).

L. Zinnamon, Los Angeles (special gift): One blue shawl and \$2 50 in coin, two packages picture cards, water color sketches.

W. A. Tyson, Woodland (special gift): One Christmas Day book, four lace collars, two yards ribbon, one game ("old man").

Dr. D. D. Logan, Santa Barbara (special gift): One Christmas card, one suit of clothes, one book.

Charley Lewis, San José: One toy parrot.

Mr. Clarence Haydock, San José: Ten bags marbles, seventeen picture cards.

Mrs. A. E. Wells, San Francisco (special gift): Three white aprons, one box candy.

seven handkerchiefs, one plush workbox, scissors, etc., one Christmas card, one dozen bonbons.

Rev. R. Bentley, Oakland (special gift): One writing desk, one tin toy, one cabinet photograph, one pin cushion, one writing tablet.

Philip Deiter, San Francisco (special gift): One bustle, two cans jelly, two boxes hairpins, four chemises, two white skirts, seven envelopes, six sheets writing paper.

Messrs. O. A. Hale & Co., San José: Two and one third dozen bottles cologne, two baskets (one bottle each) cologne, two tumblers (one bottle each) cologne, two fancy pitchers (one bottle each) cologne, two fancy vases (one bottle each) cologne, two fancy porcelain bottles cologne.

Mrs. Hannah L. Dodge, San Francisco: Two fruit pies, six mince pies, six pie pans, seven oranges, quantity of crackers.

Mr. Norman Spencer, Oakland (special gift): Two white shirts, five handkerchiefs, one necktie, one bag candy.

Mrs. C. Aigeltinger, San Francisco (special gift): One book.

Mr. W. G. Brown, San Francisco: One roll of pictures.

NOTE.—The foregoing gifts, noted as "special gift," were to individual inmates, and were distributed as directed.

TABLE 13—CASH DONATIONS RECEIVED ON ACCOUNT OF CHRISTMAS FUND, DECEMBER 25, 1889.

C. E. Flagg, San José	\$5 00
T. L. Barker, San Francisco	5 00
Geo. P. Morrow, San Francisco	2 50
Messrs. Mack & Co., San Francisco	2 00
Lewis Gerstle, San Francisco	25 00
George T. Taylor, San Francisco	5 00
Mrs. B. F. Pitts, Hueneme, Cal.	5 00
Mrs. H. M. Jessup, San Francisco	5 00
Mrs. Albert Page, San Benito	1 00
John T. Riorden, Vallejo	2 50
T. H. Williams, San Francisco	20 00
C. H. Kingsley, San Francisco	5 00
Chas. Kingsley, San Francisco	10 00
J. A. Filmore, San Francisco	10 00
T. H. Goodman, San Francisco	10 00
Geo. C. Jenkins, Santa Clara	2 00
Mrs. Ariel Lathrop, San Francisco	20 00
Archbishop Riordan, San Francisco	20 00
Philip Dieter, San Francisco	3 00
J. B. O'Brien, Santa Clara	5 00
Rev. A. L. Kellogg, Santa Clara	1 00
Mrs. A. Ellis, San Francisco	5 00
W. J. Curtis, San Bernardino	5 00
Mrs. H. L. Dodge, San Francisco	5 00
C. A. Merkle, San José	5 00
M. F. Redmond, San Francisco	10 00
A. J. Snodgrass, Ventura	2 50
S. Oberdeener, Santa Clara	10 00
R. H. Hatch, Half Moon Bay	3 00
W. C. Badeau, Monrovia	1 00
A. Anspacher, San Francisco	5 00
Messrs. Newman & Levison, San Francisco	5 00
Wallace Land, Clements	1 00
Weinstock, Lubin & Co., Sacramento	10 00
Richard Burnett, San Francisco	1 00
W. A. Tyson, Woodland	5 00
Henry Claussen, Point Reyes	10 00
C. T. Ryland, San José	5 00
Robert Menzell, Santa Clara	5 00
T. J. Maguire, Santa Barbara	5 00
Mrs. M. Brown, San Francisco	5 00
H. Meininger, Mount Eden	2 50
B. Hicks, Santa Clara	5 00
L. V. Garrigus, Santa Clara	50
N. Jackson, Santa Clara	50
F. R. Coffin, Ellensburg, Washington	5 00
James Kerr, San Jacinto	5 00
H. A. Harms, Pleasanton	1 00
Redington & Co., San Francisco	10 00
W. A. Schrock, San Francisco	5 00
Mrs. P. Grace, Madera	2 50
Rev. R. Bentley, Oakland	3 00

Jacob Eberhard, Santa Clara	\$5 00
Mrs. H. P. Bowie, San Mateo	5 00
Miss Gertrude Clough, Los Angeles	5 00
E. E. Goodrich, Quito Olive Ranch	5 00
Edgar Mills, San Francisco	50 00
Miss Lizzie Weidemuller, San Francisco	5 00
Mrs. B. V. Weeks, Pescadero	2 50
Mrs. B. D. Miller, Sacramento	2 50
Judge F. E. Spencer, San José	5 00
David Jacks, Monterey	5 00
Swedish Evangelical Lutheran Sunday School, San Francisco	3 55
Swedish Mission Church, San Francisco	1 35
William Alley, San Francisco	5 00
Rev. Father A. V. Raggio, S. J., Santa Clara	5 00
Henry R. Judah, San Mateo	5 00
James A. Findley, San José	10 85
F. A. Jewell, Sacramento	2 50
Hugh Hamilton, Oakland	5 00
Mrs. B. D. Murphy, San José	20 00
Camilo Martin, San Francisco	5 00
S. J. Goldsmith, Santa Ana	1 00
Thomas Day & Co., San Francisco	2 50
Hon. Thomas J. Clunie, Washington, D. C.	20 00
Mrs. A. E. Wells, San Francisco	1 00
Dr. Waddams, Santa Clara	1 00
Mrs. Eleanor Patterson, Linden	1 00
Nicholas Stefano, Sacramento	5 00
G. A. Love, San Francisco	3 00
Maria Peterson, Napa City	2 50
Mrs. Bedford Bacon, Stockton	1 00
Mrs. Thomas Smith, Stockton	1 00
Mrs. L. Martin, Stockton	1 00
Peter Christians, Stockton	50
Mrs. S. Hancock, Stockton	50
Frank Damerall, Stockton	50
William Wilkins, Stockton	1 00
Larkin Hunting, Stockton	1 00
James Ashley, Stockton	50
M. K. Bacon, Stockton	1 00
<hr/>	
	\$505 75

TABLE 14—DISBURSEMENTS—CHRISTMAS FUND OF 1889—VOUCHERS ON FILE IN THIS OFFICE.

Voucher.	HOW EXPENDED.	Amount.
-----	Paid to inmates, as per request of donors, included in Table 13	\$15 00
No. 1.....	Newman & Levinson, supplies	20 00
No. 2.....	New York and San Francisco Collar and Cuff Company, supplies	7 75
No. 3.....	Bauer Bros., San Francisco, supplies	7 60
No. 4.....	M. Schwartz, San Francisco, supplies	2 45
No. 5.....	Davis Bros., San Francisco, supplies	47 40
No. 6.....	Mrs. Barratt, Philadelphia, supplies	17 70
No. 7.....	John Wanamaker, Philadelphia, supplies	43 42
No. 8.....	Fiengenbaum & Co., San Francisco, supplies	20 95
No. 9.....	Bauer Bros., San Francisco, supplies	8 05
No. 10.....	Fiengenbaum & Co., San Francisco, supplies	6 47
No. 11.....	Maurice O'Brien, San José, supplies	4 75
No. 12.....	Maurice O'Brien, San José, supplies	12 00
No. 13.....	Expressage, postage, printing, etc.	30 30
No. 14.....	The Arcade, San José, supplies	21 15
No. 15.....	The Fair, San José, supplies	1 30
No. 16.....	T. W. Hobson & Co., San José, supplies	19 75
No. 17.....	Materials for children's entertainment	2 50
No. 18.....	D. R. Niver & Co., Albany, N. Y., S. S. papers, etc.	17 50
No. 19.....	Kindergarten book of plays	1 45
No. 20.....	A. C. Kropp, musical materials	4 55
No. 21.....	A. C. Kropp, musical materials	8 35
No. 22.....	O'Connor, Moffitt & Co., supplies	8 20
No. 23.....	Outing for one of the work girls	2 25
No. 24.....	A. C. Kropp, clarinet	15 00
No. 25.....	Fiengenbaum & Co., San Francisco, supplies	2 30

TABLE 14—Continued.

Voucher.	HOW EXPENDED.	Amount.
No. 26...	Special rewards for children.....	\$3 82
No. 27...	Outing for work girl.....	2 00
No. 28...	Davis Bros., San Francisco, supplies.....	27 15
No. 29...	Cunningham, Curtiss & Welch, San Francisco.....	10 47
No. 30...	O. A. Hale & Co., San José, varieties.....	32 35
No. 31...	Outing for boys.....	11 10
No. 32...	Davis Bros., San Francisco, polyopticon.....	10 00
No. 33...	Outing for girls.....	12 30
No. 34...	Mrs. P. B. Holmes, picnic supplies.....	20 00
No. 35...	Tent and presents for children.....	23 75
No. 36...	A. H. Marten, San José, sewing-class materials.....	4 85
	Excess paid by Superintendent—deducted.....	\$505 93
	Balance	18
		\$505 75

The expenditures from our Christmas Fund have afforded us the means of supplying our children, not alone at "Christmas times," when abundance of all that gladdened the heart prevailed, but also pretty generally throughout the year, with toys, games, candy, ice cream, entertainments of various sorts, rewards of merit, gifts for progress and behavior, etc. The existence of the fund has been a source of untold delight, while to many it has brought creature comforts that have been thoroughly appreciated.

MISCELLANEOUS.

A SILVER MEDAL.—Last spring our children prepared an exhibit of their school and industrial work, for the International Exposition at Paris. The exhibit consisted of school examination papers in geography, history, elementary and higher arithmetic, penmanship, spelling, drawing, etc., and specimens of work in repoussé, knitting, hand and machine sewing, outlining, embroidery, some articles of hand-made clothing, and quite an elaborate kindergarten display, prettily mounted in books specially for the occasion. The exhibit was forwarded with many misgivings on the part of our children—the distance seemed so great, the idea of competing with the whole world so novel and strange, the fear of finer, handsomer, and larger displays from the other institutions, overshadowing their modest efforts, all combined to render the outcome problematical. Indeed, some of these fears were shared by the older heads in the institution, but it was thought best to show what we were doing and to prepare as good an exhibit as our children's training permitted, trusting to the kindness of the officials of the exposition to give the same as favorable a display as its merits warranted. First came the good word that the United States Superintendent of Exhibits had received the articles safely; next that they had arrived safely in Paris and would be taken care of, and then after quite a long silence a request transmitted through the American Superintendent that they be donated to the National Library of France and the National Pedagogic Museum, which request, of course, was granted.

The next that was heard regarding our exhibit was the information conveyed in the following letter:

1825 FIFTH AVENUE, Troy, N. Y.

Superintendent Home for Feeble-Minded Children, Santa Clara, Cal.:

DEAR SIR: At the Paris Exposition your exhibit was awarded a "silver medal," which will reach you through Department of State in due time.

The reporter of the jury which made the award has, by some accident, failed to receive reports, etc., which I left for him, and which are necessary for his report. I am collecting duplicate set to send to him. If you will soon send me your last report and any other desirable information I will much appreciate the favor.

Yours respectfully,

C. WELLMAN PARKS,

U. S. Superintendent, etc., Paris Exposition, 1889.—Per M.

There has been great rejoicing in the Home over this announcement, in which, again, older heads have shared the children's feelings. To secure so distinguished honors at an international exposition in a foreign country, is to have our work recognized on somewhat of an international basis, elevated above ordinary effort, and as an educational feature, as a branch of the great educational system of the world, sustained and extolled. To our institution it means more than any passing notice of the fact can possibly describe. Young in years, but strong in the faith, believing in our own works and confident that all elements of society must ultimately recognize the value and sustain the liberal education of the feeble-minded, the California Home has set its hand to the plow and will endeavor in the future, as it has attempted in the past, to lay the furrow full, deep, and straight in the fallow field it has preëmpted for its labors. To every friend of the Home the success of our exhibit will afford joy, and we doubt not that a responsive throb of State pride will quicken the pulses of even those who have heretofore doubted the utility of our work, and were more or less arrayed against us. We believe in the rights of the minority, and even our opponents have the right to demand facts and the evidences of practical results to sustain our theories and the promises we have made. The development of the intellectual faculties of our children, evidenced by their school and industrial work, are the best practical results that can be offered to demonstrate the correctness of our theories; and a silver medal from a world's competition, which must have come strictly as a reward of merit, is certainly a solid fact. A few more such facts and practical results and there will be no longer any opposition of which to demand an "unconditional surrender."

AUXILIARY STAFF (BENEFICIARIES).—The establishment of what we have at least temporarily called an "auxiliary staff," from among our inmates, marks, we believe, one of the most important steps that our Home has ever taken. This corps is composed of youths who have been under training for longer or shorter periods in the Home, and have made such proficiency in self-care, general education, and industrial ability, as to enable them to successfully fill important positions in the Home. In doing this they are not supplemental to paid labor, but supplant it. This will in the near future result in a very great retrenchment of wages.

The dining-rooms, three in number, officers', attendants', and children's, are under the charge of one of our girls, as a leader, who has a corps of eight other girls to assist, and all under the supervision of the Matron. The work here consists in sweeping, dusting, keeping floors in order, washing paints and windows, attending to the setting of the tables, the

washing and wiping of the dishes, cutting bread, scouring knives and forks, waiting on tables, attending to the desserts, care of cook's pantry, and of milk pantry, receiving, measuring, and keeping an account of the milk, skimming, care of all milk pans and cans, preparation and distribution of the morning lunch for children, ringing of the daily order of bells, sweeping porches and walks about the household, and waiting on door at main entrance.

The cook's assistant prepares all vegetables, attends to the fuel and fires, keeps the kitchen and kitchen store-room in order, and in all other respects fully attends to the usual duties of such a position.

The baker's assistant attends to the oven and fuel, has care of the bakery, assists in the preparation of articles to be baked, attends to the stores and delivers bread, etc.

CHILDREN'S ENTERTAINMENTS.—The usual entertainments on the various holidays and at stated periods between, have been continued throughout the year. For these delightful changes in the routine life of our children the balance carried over from the Christmas Fund has been drawn upon according to the original intention. In this connection the permanent stage erected in the Boys' Pavilion has been a valuable accessory. These entertainments, sometimes by the officers and sometimes by the children alone, we propose to continue. We look upon the play as one of the most valuable of all the aids available for the education of this class. It is object teaching extended to life lines, while at the same time it affords amusement, and thus impresses through the agency of the latter information and instruction upon their senses in an almost unconscious manner. We trust, and, on behalf of those who will be so greatly benefited by it, we plead, that in the completion of the plant now being erected at Gelston special pains will be taken to provide liberally in this direction. It is a matter no less important than the provision for school and class-rooms.

CENSUS OF THE FEEBLE-MINDED IN THE STATE.—We have been unable to obtain the census of the feeble-minded in California for 1890; but from what we know personally of the questionable system adopted for taking it, we are inclined to the assurance that whatever the figures shall be found to be, they will fall far short of the actual number. From a rather extensive correspondence over the State we have learned of the difficulty encountered in collecting accurate statistics; but we have ascertained that there exists a very large class of those unfortunates for whom no application for admission into this institution has been made. Some of the parents of these did not know of the existence of the Home. Some considered it a sort of branch of the insane asylums. Others, through false ideas of the proprieties involved, prefer to keep their children at home, and still others have made no application because of the known fact that we would not be able at this time, and probably might not be able for some time to come, to admit these cases if they did apply.

There were one hundred and forty-six applications filed with us from July 1, 1889, to October 1, 1890, but these do not include the whole number that came to our knowledge.

THE SCOPE AND STATUS OF OUR WORK.—We are still convinced that much confusion of terms and many errors of opinion yet exist in the public mind—professional as well as lay—regarding the proper scope and status of our work. This state of affairs bears directly upon the subject of applications on the one hand, and the Home's extension on the other. We meet many people who express surprise upon being informed of our true status, and whose belief had previously been that the design of the institution was to provide a custodial home for idiots only. There are others again who think of us as maintaining some sort of adjunct to the insane asylums, while most people, not specially informed, underestimate the school and training features, upon which our choicest hopes are based, and which are really our distinguishing features from other lines of asylum work. It will sound strange to those acquainted with the institution for us to assert that we frequently meet people who urge the necessity of some sort of State care for the epileptics and weak-minded paralytics, not knowing that we have from the beginning cared for these so far as our means and accommodations would admit, are now caring for a large number of them, and have already under way at Gelston a unique building for their special care and treatment. Our speciality is so new to this coast that it seems much effort is required to set us right before the masses. In view of this state of affairs, therefore, it may not be amiss for us to dwell a moment upon the consideration of some of the points involved.

The term "feeble-minded" is used in a generic sense, and is designed to embrace all the grades of "mental obliquity," of intellectual weakness, of loss of brain function, of whatever kind and from whatever source, and of general abnormality of the brain and its functions through the various mental processes, associated or not with physical disease, and not otherwise coming under the generic head of insane. It is of wide range, as this discloses, and may include the whole field of mental alienation not assumed by the subject of pronounced insanity. Between its extremes it may embrace every known phase of nervous disease, pathological change, and biological condition. The gradations pass, by almost insensible degree, from the unmistakably feeble-minded to the unmistakably insane, but in practice, as a rule, little difficulty need be experienced in determining the exact status of each case. In this connection, it is proper for us to say that our work is neither supplemental to the care of the insane nor dependent upon it. It stands as independent of it as any special form of education stands independent of custodial care or hospital treatment without educational effort. There appears no reason why the two lines of work should not harmoniously blend, one with the other, in most, if not in all, practical particulars, for they are handmaidens in the same beneficent cause of succoring a distressed humanity. It would scarcely be fair to assert that they are parallel efforts. To express it rather tersely, the work of our asylums for the insane is principally to care for a diseased condition fully established, supervening upon other conditions of more or less pronounced sanity—to deal with an effect.

The special province of the Home for the Feeble-Minded is to deal with the incipient aberration of the mental processes—*striking at the cause!* It is possible for the care of the feeble-minded to lessen the existence of insanity to an astonishing extent—perhaps one half or more. From the nature of the prime conditions involved, the care of the pronounced

insane can never lessen the ranks of the feeble-minded, and is capable of preventing imbecility only to a minimum degree by the occasional removal of the element of parentage. Had the care for the feeble-minded originated and kept pace with the care for the insane in this State, there would have been to-day fewer of the latter class to care for. Another thought occurs to us in this relation. Asylums for the insane have been erected because of *manifestations* foreboding evil to the senses or the property of society—not to remove a great fundamental *cause* of disease. Society dreads most what it sees and hears, and nurses the illusion that what is not specially demonstrative is not immediately dangerous. There can be no greater fallacy. If all lunatics were undemonstrative, public apathy would be as indifferent to their isolation and rational treatment as it has been towards the care and education of the purely feeble-minded. As it is, the imbecile boy or girl of fair face and innocent manner, stands fewer chances of State aid than the driveling idiot of misshapen form. Although they may need it more than the latter, the very hideousness of the latter's condition gives him an advantage over the former, and he is more quickly provided for.

This institution would remove from society the *cause*, so far as possible to do so. In this sense, then, we may be pardoned for considering the specialty as in advance of most other forms of correctional charity. Taking this view of it the care for the insane becomes supplemental to our own work—the last refuge for cases of hopeless mental change and weakness culled from the general mass of defectives as unfit or unable for consociate education—the “Court of last appeal!”

But, some will say, all insane are not children, nor are all cases chronic—as might be inferred from the foregoing—what of these? We admit the truth of the assertion, and reply by stating the simple fact that in the vast majority of cases insanity is hereditary from a previously vitiated stock, perhaps unrecognized as an insane condition, but closely allied to it if not identical with it, and comes sooner or later in life to those who are the offspring of feeble-minded parents, or else it is acquired through some of the vices of our civilization, coupled with the wasting errors of life. The seed that is sown by a grandfather may not germinate until a grandchild furnish the proper conditions for its development, and only in his children's children may it bring forth abundant fruit after its own kind. We think it safe to assert that in every case of so called insanity there is a first, or probationary stage of feeble-mindedness—the stage of incubation, so to speak. This stage may be of any duration, from an hour or less to a year or more. That it should not be recognized is no evidence that it does not exist.

The term “for Children,” used in connection with our work, is a relic of its origin in the eastern United States, but has become quite obsolete of late years, except in a titular sense. In many of the States the words “for Children” have given way to the words “for Youth,” or have been left out of the title altogether. We trust the latter will eventually become the case in California, where the Legislature—quite from the beginning—has opened wide our doors to all ages, thus placing our Home on a line with advanced thought in this relation.

Were all cases of mental disease first placed in a proper department of a Home for the Feeble-Minded during the stage of mental enfeeblement designated above, as the “stage of incubation, or probation,” it follows as an axiomatic sequence that fewer would find their way to the

asylums than do under the present system. It is not contended that all would be cured, though it is hoped that such a course would prove beneficial to most and work no injustice nor hardship to any. This must not be construed as reflecting upon any other asylum. From my personal knowledge of those in this State they are all that money, skill, and kindness can make them. It does, however, bear upon the fact that the asylums have been grossly overcrowded, preventing proper classification, imperiling the self-sacrificing labors of the managements, and calling forth protests from the latter in no uncertain voice.

Before there could be completed what might be called the "Overflow Asylum" at Agnews, it was thought necessary to reestablish it as a General Receiving Asylum, instead of "Hospital for the Chronic Insane," as was originally intended, and also to establish two other asylums of very considerable size, one north and one south, making five in the State equal to the accommodation of thousands of the insane, while accommodation for only a baker's dozen or so of feeble-minded persons had been provided. The wisdom of the last Legislature, however, promises to give our work for all time the generous support and the extension it justly needs. Thus, it will be seen, that the true province of a Home for the Feeble-Minded is to deal with cases before they reach the stage calling for asylum retention, as well as to provide a shelter for the purely feeble in mind, the congenitally idiotic, the epileptic, and the paralytic of feeble mind.

There are cases of juvenile insanity differing from the adult forms mainly in those particulars consequent upon the juvenile condition of life; but do the masses recognize this class, and do our asylums provide special accommodations for them? Do the asylums possess the facilities for treating them in all respects as modern society demands children shall be treated apart from adult defectives? Does any one acquainted with the facts advocate the continued incarceration of juveniles, even though violently insane, intermingled with adults of the same or a more dangerous class? We have had several applications from the officers of the asylums to take children now in their care, and known to be either feeble-minded, idiotic, or otherwise demented, and for whom the asylums afford no proper seclusion.

There can be no question that their continued association with the kind of adults they are thrown with is detrimental to their best interests, and scarcely permits of a hope for their restoration or advancement in any degree. The State law debars the admission of idiots into the insane asylums, and justly; and as it follows as a consequence that this institution must be provided with the means for the rational care of idiots in separate buildings from the imbecile grades, we also deem it proper that the State make additional provision in our asylum department for the custody of the juvenile insane—at least until such time as childhood is passed.

CLASSIFICATION.—We submit the following classification based upon that of Dr. I. N. Kerlin, who for over thirty years has been the successful head of the Pennsylvania Institution for the Care and Training of Feeble-Minded Children. This institution shelters over eight hundred of all grades, and affords unrivaled facilities for the formation of authoritative opinion:

Idiots: 1. Unteachable—Chiefly characterized by the exhibition of the vegetative functions. 2. Teachable—Vegetative, plus a modicum of mind permitting imitation; limited correlative action of two or more of the five senses; memory.

Idio-imbeciles: A type higher in endowments than "teachable idiots"; of mixed characteristics, susceptible of considerable training in simple, uncomplicated lines, and often capable of self-help and light work.

Imbeciles: Usually subdivided into low, middle, and high grades, to denote relative development; susceptible of marked improvement in all educational and manual (industrial) pursuits; made up of many sub-types, the highest of which is the purely feeble-minded; includes in their proper relation, kleptomaniacs, pyromaniacs, moral imbeciles, etc.

Juvenile insanity has already been spoken of.

Epilepsy complicates all these grades, while the epileptoid dyscrasia may be the hidden, subtle spring from whence arises the ego of the majority of our mischievous, erratic, or criminal members of the defective and delinquent classes, whether recognized as "imbecilic" or not. This question is one of such grave importance in its economic and politic, as well as its correctional phases, that we deem it a just duty to throw against it with all the penetration at our command the strong light of professional warning.

We once heard it asserted by a prominent member of a State Legislature, in speaking of State appropriations for various charities, that "there are appropriations we *may* make, and there are appropriations we *must* make." Referring to the "fact" (?) that the insane must be provided for whether other grades of mental defect and disease were looked after or not. This is in the same illogical vein of reasoning that I once heard advanced on a similar occasion, viz.: That the insane must be provided for before any other class can be considered, "because they are dangerous to any community. The rights of the individual demanded that his life and property shall be protected *as what the cost may be*. Other defectives, who are not so dangerous, can be tolerated, etc., as in the past." Hence it would appear that fear of personal injury or proprietary loss is the motive power that most generally speeds the wheels of legislative action in these matters. The obligation of organized society is to relieve distressed parents of their feeble offspring, to prevent the physical and moral ruin of imbecile girls, and the development of the criminal in boys. The fitness of these things had not been considered, apparently, by these people, since these were the things an appropriation *might* be made for, to again quote their language. The prayers of a sorrow-shadowed family; the tears of anguished parents, goaded to desperation by the incubus of imbecility, with perhaps the horrors of poverty as the background; the plaintive appeals of virtue, beset by temptation, and left unsupported; all these were as a feather in the balance of their sense of justice, compared to the (to them) crushing weight of the argument of one maniac running "amuck" in the community.

Thanks to the advancement of the age, society has grown too rich, too strong, too kind, too compassionate, too humane, to longer tolerate in any community with neglectful indifference, that abject wretch of days gone by, "the village fool." Merciful men and women extend to the half-witted a full measure of their pity and protection. The infirmities or eccentricities of the demented are no longer the subject of brutal jest without rebuke. The world has found that it is not only the just and proper thing to do, but that it pays to expend time, energy, and money to undertake the cure of what, in the absence of remedial effort, becomes an ever spreading, pestilential, malodorous sore. But let us see if there

is no risk to person or property in allowing unrestricted liberty to some who are manifestly feeble-minded, while their more demonstrative kinsmen in disease—the insane—are quickly sequestered behind locks and bars.

The *Epileptic* at large, is, almost without the possibility of an exception, to the household and the community, an unknown factor for trouble. So far as their vagaries are understood by the public to be responsible for breaches of the law and of the peace, they are not only an unknown, but must, in many cases, remain an unknowable quantity, and for the reasons about to be given.

The unvarying trend of the epileptic disease, when unchecked or untreated, is to the goal of imbecility or the graver manias associated with true insanity, notwithstanding the rather misleading statement of Dr. Jas. W. Walk before the National Conference of Charities and Correction, in Baltimore, in May last, viz.: that "some of the most distinguished men, from Julius Cæsar down, have been epileptics."

Without entering upon the consideration of the pathology of the disease, we pass to what bears more particularly upon the assertion we have made. The psychological peculiarities are marked. One of the first symptoms to be noted is the obtunding of the finer sentiments and moralities, followed by the progressive depravity of those feelings which constitute the chief glory of a normal human being's moral and spiritual nature. Epilepsy, even before the outward expressions of the face and the spasm are noted, affects the ethics of character, and insidiously calls into action the meaner and baser forces of the victim's being. Deception takes the place of truth and candor. Petty vices crowd out the restraining sense of the moral obligation and opens the door for criminal intent. Cruelties of a minor sort afford a strange satisfaction, and the repulsive things of life may be gloated over, may be, withal, in secret, with a horrible fascination for details. So subtle, so gradual, the change from the normally right to the radically wrong, that we are not apt to recognize it, or, if recognized, to ascribe it to other causes and fail to comprehend its terrible significance. Most often the true meaning of it all is revealed to us only after some breach of prominence is made and the depraved state of the mind is exposed. The victim, at least at first, is not a willing agent to the commission of these vices. He first repels "the still small voice" that, in the innermost recesses of his being suggests the committing of wrong, and cunningly supplies a plausible cover for the act, and an escape from the consequences. But the repetition of the temptation brings him under the spell of the serpent's eye and fills him with a consuming curiosity to do the bidding of his unwelcome guest. He is as one tormented by invisible demons, who goad him to desperation if he attempts to refuse their solicitation, and who gloat over his ruin when he yields. The next chapter of this distressing story may disclose so pronounced a loss of the moral sense and responsibility that the victim now revels in the open commission of every known phase of crime that vulgarity, obscenity, hypocrisy, and general depravity can suggest.

Long before this stage is reached, however, his influence for evil in the community may have worked untold mischief. Because he is the unwilling and often unconscious agent of his own wrong doing, is the most palpable reason why he should be feared. The hidden nature of his propensities makes him to be dreaded as one always dreads an unseen

foe. It is the element of uncertainty concerning all his acts that renders him so dangerous an element in society. Each case will present phases peculiar to that case, and the only law applicable is, apparently, the law of contraries. The individual becomes markedly that which he was not before, though it is possible, of course, to find predominating traits spasmodically exaggerated. He becomes that which it was not his desire or constitutional intent to be. This stage of his hopeless progress may not be characterized by the more familiar expressions of the disease, the convulsive signs. The stage of rapidly repeated convulsions, although usually introductory to the final act of the drama, lessens the danger to himself and others, by calling for and securing some sort of remedial restraint or seclusion.

The final state of the hopelessly afflicted victim is most miserable; language fails to fully describe the chamber of horrors in which his mind is entombed; the most vivid fancy falls short of the just conception of the intensity of his mental anguish. At times conscious of his gradual breaking up, his struggles to avert his impending doom are as frantic as they are futile; and as the aura again creeps over him his despairing cry and piteous gaze are simply heartrending. He is vacillated twixt hopes and fears, and his life becomes a fitful succession of physical pain, mental torture, and the most unreasonable hope of recovery from his distressing condition. He is as a blighted leaf prematurely shaken from off its stem from among the thousand leaves of life's early summer, to be caught up ere it touches mother earth and hurled hither and thither in the ever eddying winds of conflicting forces, to lie quivering at last in the fence corner of some remedial or correctional retreat until Nature's final dissolution kindly removes the object from our sight.

Were it possible to cause to pass before society's gaze the hidden causes of most theft, of intrigue, of conspiracy, of assault—even of arson and of murder—society would stand aghast at the revelation of the number actuated, not by the innate depravity of the individual *per se* to be corrected by the various penalties and incarceration in jails, or by the taking of life—radical cure that the latter is—but by *epilepsy* in some of its protean manifestations, to be corrected by rational treatment and continued retention in hospitals and asylums suitable for this class. The medical literature of the day records numerous cases of suddenly developed mania in epileptics and those afflicted with allied disorders. Sometimes they appear to be developed almost instantaneously, as on the street, for instance, and the first luckless person met may be the recipient of the epileptic's fury. A case illustrative of this occurred not long since in an eastern city. A business man consulted a physician for a certain nervous affection. The doctor diagnosed incipient epilepsy, and as mildly as he dared prepared the man for future treatment. The patient was permitted, at his own urgent request, we believe, to return home alone, the intention being to secure next day quarters in some safe retreat for his further care. On the way home, without a moment's warning, the epileptic explosion occurred, and a stranger who was passing was knocked down and brutally assaulted.

Dr. C. M. Hay, of the New Jersey State Asylum for Insane, in the "Journal of Nervous and Mental Disease" (Vol. 14, p. 374), thus describes the attack of a patient (a woman) under his care: "Suddenly starting from any employment at which she may be engaged, the patient utters a piercing scream and begins to run wildly up and down, with

wide open, staring eyes and dilated pupils. Any obstruction is overcome, and while in this state the woman is a marvel of strength; almost incredible stories being related by her attendants of her prowess. On one occasion she utterly demolished a partition of strong boards, and on another she wrenched away a settee on which a number of persons were sitting, and then dashed it down in a wreck and continued her flight." Hundreds of similar cases might be added if it were worth the while.

At the usually accepted ratio of two epileptics per thousand of population (which, by the way, we consider far below the average), there are about one hundred and thirty thousand epileptics in the United States. The number suffering from the epileptoid group of diseases may never be accurately computed, but the figures are certainly high. He, then, who would assert that the epileptic is a harmless and insignificant element in our population, reckons without his host. Dr. Fred. Peterson, of New York, is authority for the statement that there are over twelve thousand of these in the State of New York alone, and he gives only three hundred as the number cared for by the leading institutions outside of almshouses. What a startling condition of affairs this statement discloses! The following resumé of cases under our care in this institution may serve to throw some additional light upon the epileptic state for those who may not have given the matter any special thought.

An officer reports to us a certain child for repeated and apparently uncontrollable outbursts of temper, disobedience, foul language, inciting other children to acts of destruction and open rebellion; perhaps some windows have been broken, while a record of having been getting "bad" for some days is presented, with the commentary that "he is worse now than ever." We examine him taken in the act of some irregularity. The eyes are staring or glaring with a singular expression. The pulse is irregular, also the breathing. A doggedness of purpose, together with a certain unmistakable, but not easily defined, stupidity, betrays the epileptic state. We question him. He either admits his guilt and cunningly fabricates excuses, or else persistently falsifies with an abandon that is remarkable, even in the teeth of the most positive evidence to the contrary. To his mind, no evidence is convincing excepting that framed by his own words. We caution him, plead with him, exact promises. His answers may or may not be all that is desired. We send him to his work, or school-room, or play-yard. The trouble is repeated, perhaps in an aggravated form. We send him to bed to insure rest and quietness, and to remove him from sources of irritation in his inflamed, nervous state. A series of epileptic seizures completes the story, and after a few days he rises weak, perhaps in both body and mind, yet withal relieved, penitent, and refreshed.

A girl is reported for continued foulness of tongue and reprehensible acts. She worries the Matron with her waywardness, and seems unable to grasp the sense of the Matron's efforts to restrain her. Counsel, coaxing, bribes, shaming, all have no effect in eradicating the thoughts and apparent purposes of the wanton. The perversion of her sexual forces arouses a riot within her, and plays havoc with her otherwise good disposition. Seclusion is peremptorily demanded. A few spasms, like the clearing effect of a tempestuous thunder storm upon the heavy atmosphere, clears and refreshes, for a time, her moral nature. Like another Ophelia, she would seem to show that

"Thoughts impure may pass through minds of angels and of men
And leave no stain!"

An attendant brings to the office a young man whose past record has been one of general confidence and goodness and willingness of disposition. In view of this he enjoyed special indulgences and privileges. But what a change! He is now ferocity itself. His eyes are those of a maniac. His fingers twitch, and he glares upon the attendant with almost demoniac malignancy. What has happened? In the course of a daily duty, which he has neatly performed for two or three years, a common place direction is given, and the young man replies vulgarly and impudently. A proper admonition from the attendant brings out a strange display of temper, and before the unsuspecting officer realizes the situation the young fellow steals upon him, and with horrible imprecation strikes him in the face and on the head and clutches at his throat. There is every indication that the desire to kill has been aroused, whether willingly or not on the part of the unfortunate is of little consequence. For the instant it is there. He succeeds in tearing clothes and doing some scratching, before he is secured and brought to us quivering with the intensity of his excitement. We hear the recital in full, and he admits it all in a sort of way that leads one to feel he is sorry he did not do greater damage. Dismissing the attendant, we have the young fellow sit down by us, and a long, quiet, earnest, low-toned talk, delivered kindly but firmly, brings him to tears, and then we realize that the epileptic fury has gone—the epileptic cloud has passed once more from over him. The diversion of his mind rapidly to other subjects, after his confession that it was "the bad feeling" within him that made him do so, completes the temporary treatment. He goes to the attendant humbly, and, we have no doubt sincerely, begs his pardon, and takes up the thread of daily duty where he dropped it, to continue it until interrupted by a spasm or such another attack as we have described. This one was the first in the history to our knowledge; the next may be to-morrow, next month, in an hour, or a year hence; perhaps never; no one can tell.

The establishment of a separate home for epileptics on our new site at Gelston, and the beginning of the work there upon such promising lines, has filled us with proudest hopes. It was a step in the right direction, and for which a grateful future will preserve for those who have founded it an immortal memory. In the consideration of this very question of providing special accommodations for the epileptics, Dr. Peterson (already quoted) has written:

For every other defective class provision has been made, in greater or less degree, for the insane, for idiots, for the deaf and dumb and blind, for the sick, for the crippled, for the aged and infirm, for young malefactors in reformatories, for the negro and the Indian; and for all of these improvement in care, treatment, or development, is continually progressing.

Almost alone, however, has the sufferer from epilepsy been left to shift for himself, usually an outcast from his family, expelled from the schools, denied industrial employment, shunned to a great extent by his fellows, left to grow up in idleness and ignorance, friendless, a prey to one of the most dreadful and most hopeless of human ills, refused admission to general hospitals, generally drifting at last to the almshouse and insane asylum. He is given refuge in the insane asylum, not as a rule because he is deprived of reason—although many epileptics do become demented or unmanageable—but because there is no other place for him to go. Hundreds, nay thousands of epileptics are in American asylums at this moment who do not really belong there, and of whom many will be found who do not show the slightest mental aberration. It is an injustice to the epileptic, and it is a detriment to the insane.

And in conclusion he says:

This essay has been written in the hope that some public sentiment may be aroused as to the necessities of this neglected class of defectives; in the hope * * * for the early establishment in this or some other State of an epileptic colony, which shall become a home for the homeless, a place of refuge from many miseries, an educational institute for those who are forbidden the public schools, an industrial college for those to whom the ordinary avenues of trade are closed, a hospital where care or palliation shall be possible, and where the highest scientific minds may be enabled to discover some time a specific against one of the most woeful of human ills; in short, a prosperous, industrious, and thriving community to serve as a model for many other such yet to be founded on this continent.

IN CONCLUSION, we beg to here express our sincere appreciations of the innumerable courtesies and kindnesses received from the Trustees, both as a Board and as individuals. In these expressions of grateful appreciation, the Matron joins the writer in profound regard. These acts have strengthened our hands, encouraged us to renewed zeal when we might have wavered, and have been a never failing antidote for all the tire and anxiety of managerial care. We trust that our united efforts have found favor with the Board, and afforded you satisfaction amidst the perplexing cares of your responsible offices, and we hope that our labors in serving you in the fruitful year just entered upon may be such as to warrant a continuance of your valued esteem.

To the officers and members of the general staff, who have labored with us to further your designs and purposes, we have the pleasure of highly commending for their industry and conscientious interpretation of the needs of the various duties assumed. Without their personal efforts to further the interests of the Home upon the lines laid down to them, much that we now proudly point to would have been unaccomplished.

And, lastly, to the patrons and many friends of the Home who have shown us many personal considerations pleasant to note, remembered our children substantially, and appreciated our efforts in their behalf, our gratitude is also due, and thus publicly acknowledged.

I have now to invite your attention to the following tables as setting forth in detail the financial transactions of the institution for the past fiscal year:

SCHEDULE A.

RECAPITULATION OF RECEIPTS AND EXPENDITURES DURING THE FORTY-FIRST FISCAL YEAR
ENDING JUNE 30, 1890.

Cr.

June 30, 1889—By cash balance in hands of Treasurer	\$1,601 03
By cash balance in hands of Trustees	300 00
June 30, 1890—By warrants and coin from State Controller, account of maintenance	38,718 45
By warrants and coin from State Controller, account of site and building	53,981 10
By warrants and coin from State Controller, account of furniture	3,242 70
By warrants and coin from State Controller, account of water, sewerage, etc.	129 28
By cash from parents and guardians, account of tuition and maintenance	2,832 00
By cash from the sale of live stock and junk	145 65
By cash from Bank of Santa Clara County (special deposit)...	1,000 00
By cash from rents at Hillgirt (Glen Ellen)	166 66
By cash from interest on special deposit in bank	45 00
By cash from special donations	1,531 15

\$103,693 02

Dr.

June 30, 1890—To cash paid local creditors, account of maintenance at Santa Clara	\$30,374 21
To cash paid local creditors, account of maintenance at Hillgirt	8,344 24
To cash paid local creditors, account of site and buildings	53,978 60
To cash paid local creditors, account of furnishing	3,242 70
To cash paid local creditors, account of water, sewerage, etc.	129 28
To cash paid State Treasurer	2,493 55
To cash paid for musical instruments from Donation Fund	110 00
To cash held by Trustees, as Contingent Fund for Hillgirt	100 00
To cash advanced by Trustees from Special Fund, account of claims at Hillgirt	1,804 00
To cash on special deposit with Union Savings Bank, San José	2,000 00
To cash in hands of B. D. Murphy, Treasurer	983 19
To cash in hands of Superintendent	130 75
To State warrant in hands of Superintendent, unclaimed (account of Hillgirt)	2 50
	<u>\$103,693 02</u>

SCHEDULE B.

RECEIPTS FROM THE STATE CONTROLLER ON ACCOUNT OF THE APPROPRIATIONS FOR THE FORTY-FIRST FISCAL YEAR, ENDING JUNE 30, 1890.

Account of Maintenance.

1889—August 25—Received warrants Nos. 1930 to 1988 from State Controller	\$3,087 04
September 30—Received warrants Nos. 3693 to 3727 from State Controller	3,605 81
October 17—Received warrants Nos. 4810 to 4871 from State Controller	2,822 42
November 26—Received warrants Nos. 6892 to 6946 from State Controller	2,764 03
December 20—Received warrants Nos. 8013 to 8063 from State Controller	2,936 22
1890—January 27—Received coin from the State Controller	2,415 87
February 17—Received coin from the State Controller	2,831 15
March 29—Received coin from the State Controller	3,934 74
April 16—Received coin from the State Controller	3,138 77
May 1—Received coin from the State Controller	173 82
May 14—Received coin from the State Controller	3,838 81
June 23—Received coin from the State Controller	1,942 98
June 25—Received coin from the State Controller	1,875 51
July 22—Received coin from the State Controller	3,351 28
	<u>\$38,718 45</u>

Account of Site and Buildings.

1889—October 3—Received warrants Nos. 3893 to 3937 from State Controller	\$613 85
October 23—Received warrants Nos. 5114 to 5222 from State Controller	167 20
November 26—Received warrant No. 6947 from State Controller	25 00
December 3—Received coin from State Controller	50,000 00
1890—January 27—Received coin from State Controller	30 00
February 22—Received coin from State Controller	52 00
April 16—Received coin from State Controller	1,090 20
May 1—Received coin from State Controller	18 25
July 22—Received coin from State Controller	1,984 60
	<u>\$53,981 10</u>

Account of Furnishing.

1890—April 16—Received coin from State Controller	\$917 27
May 1—Received coin from State Controller	1,326 92
May 14—Received coin from State Controller	414 27
June 25—Received coin from State Controller	195 87
July 22—Received coin from State Controller	388 37
	<u>\$3,242 70</u>

Account of Water, Sewerage, and Improvement of Grounds.

1890—May 14—Received coin from State Controller	\$111 78
July 22—Received coin from State Controller	17 50
	<u>\$129 28</u>

SCHEDULE C.

PAYMENTS MADE FROM THE STATE APPROPRIATION FOR MAINTENANCE AT SANTA CLARA
DURING THE FORTY-FIRST FISCAL YEAR, ENDING JUNE 30, 1890.

1889—August 27—Payroll for the month of July, salaries.....	\$1,129 16	
Oregon Improvement Company, coal.....	626 05	
Pacific Manufacturing Company, lumber.....	122 94	
Hancock & Regnart, meats.....	119 25	
J. B. O'Brien, dry goods and clothing.....	115 25	
Dr. A. E. Osborne, Superintendent, contingent expenses.....	105 08	
The Farmers Union, supplies.....	93 89	
G. W. James, provisions.....	93 62	
I. N. Thompson, cows.....	90 00	
McGettigan & Co., bread.....	67 36	
L. V. Garrigus, painting.....	65 00	
S. Foster & Co., supplies.....	61 27	
E. J. Baker, coal.....	55 15	
S. Oberdeener, drugs and medicines.....	50 50	
S. M. Stearns, fruit and eggs.....	45 32	
John H. Johnson, cow.....	45 00	
Loftus Bros., steam injector.....	30 00	
William Grey, machine work.....	24 00	
J. Cereghino, vegetables and fruit.....	23 90	
C. Tischer, laundry soap.....	22 50	
Miss L. Bray, sewing.....	20 50	
Tribune Publishing Company, advertising supplies.....	16 00	
J. M. Raney, livery expenses.....	14 00	
W. S. Dougless, agent fire extinguishers.....	10 80	
E. H. Guppy & Son, stationery and school supplies.....	10 70	
Best & Williams, meats.....	9 35	
Union Ice Company, ice.....	7 50	
H. A. Pfister, supplies.....	6 25	
G. E. Bowman, fish.....	5 05	
The John Stocks Sons, supplies.....	1 65	
1889—October 3—Payroll for the month of August, salaries.....	\$1,197 80	\$3,087 04
Pacific Manufacturing Company, lumber.....	394 79	
John Sallows, feed, etc.....	293 53	
L. A. Sweatt, carpenter work.....	215 87	
T. Klinkerfushe, mason work.....	185 00	
The Farmers Union, supplies.....	184 95	
Hancock & Regnart, meats.....	153 25	
G. W. James, provisions.....	136 26	
S. Hustache, wood.....	132 75	
R. Menzell, kitchen and plumbing supplies.....	124 16	
The Odorless Excavating Company, relieving cesspools.....	100 00	
T. W. Peterson & Co., brick.....	91 00	
S. Oberdeener, drugs and medicines.....	67 25	
M. Morganthau, laundry soap.....	63 00	
Ant. Fatjo, supplies.....	59 90	
Goodyear Rubber Company, hose.....	49 00	
R. A. Swain & Co., crockery.....	41 51	
S. H. Knapp, contingent expenses.....	29 64	
J. Cereghino, vegetables and fruit.....	22 80	
H. A. Pfister, lime, etc.....	18 50	
Universal Bakery, cream and cakes.....	14 25	
John Stocks Sons, gas fittings and fixtures.....	12 80	
E. Knickerbocker, ice.....	8 62	
E. H. Guppy & Son, stationery.....	5 65	
Bancroft Company, school supplies.....	3 53	
1889—October 18—Payroll for the month of September, salaries.....	\$1,209 00	\$3,605 81
J. B. O'Brien, dry goods, bedding, etc.....	246 34	
The Farmers Union, supplies.....	192 47	
Ant. Fatjo, supplies.....	169 30	
G. W. James, provisions.....	135 06	
S. Hustache, wood.....	126 56	
Hancock & Regnart, meats.....	125 65	
McGettigan & Co., bread.....	98 37	
B. Hicks, shoes and repairs.....	75 75	
Mrs. S. M. Stearns, fruit and eggs.....	65 85	
W. E. Wadams, V.S., professional services.....	50 00	
Mrs. Katherine B. Lathrop, Trustee, traveling expenses.....	41 60	
L. L. Solomons, attorney, professional services.....	38 50	

S. Oberdeener, drugs and medicines	\$32 05
Dr. A. E. Osborne, Superintendent, contingent expenses	30 98
Lucius L. Solomons, traveling expenses	29 50
J. Cereghino, vegetables and fruit	18 15
Mrs. Julia M. Judah, traveling expenses	16 80
Pacific Manufacturing Company, lumber	17 59
Charles Hirth, water repairs	16 00
A. A. Gosbee, piano repairs, etc.	14 50
William Harney, Trustee, traveling expenses	12 80
L. B. Ingalls, repairs to windmill	9 80
T. E. Gallup, dental services	9 50
E. Knickerbocker, ice	9 00
G. B. McKee & Co., supplies	7 90
George Free, truckage	6 00
M. J. Stafford, newspapers	4 20
The Bancroft Company, school supplies	4 00
Dunn & Ehlers, sign painting	4 00
C. A. Murdock, traveling expenses	3 20
E. H. Guppy & Son, stationery	2 00
	<hr/>
	\$2,822 42

1889—November 26—Payroll for the month of October, salaries	\$1,209 00
The Farmers Union, supplies	293 39
R. A. Logan, wood	257 35
John Sallows, hay	200 25
Hancock & Regnart, meats	156 65
G. W. James, provisions	150 34
Dr. A. E. Osborne, Superintendent, contingent expenses	86 97
S. Hustache, wood	75 37
G. W. Seifert, M.D., medical attendance	47 00
S. M. Stearns, eggs and fruit	39 27
Pacific Manufacturing Company, lumber	37 14
Lucius L. Solomons, professional services	37 00
S. Oberdeener, drugs and medicines	29 45
J. Cereghino, vegetables and fruit	28 35
W. A. Schrock, iron bedsteads	28 00
E. H. Guppy & Son, stationery	16 85
A. R. Woodams, hay	15 25
Garden City Drug Store, brushes	14 40
John A. Day, blacksmithing	13 25
S. Foster & Co., woodenware, etc.	12 00
Theodore Messenger, hair cutting, etc.	10 00
E. Knickerbocker, ice	3 75
The John Stocks Sons, repairs	1 50
The Bancroft Company, school supplies	1 50
	<hr/>
	\$2,764 03

1889—December 21—Payroll for the month of November, salaries	\$1,209 00
Ant. Fatjo, supplies	319 25
The Farmers Union, supplies	269 09
J. B. O'Brien, dry goods and clothing	213 12
R. Menzell, water and plumbing	204 91
G. W. James, provisions	139 64
S. Hustache, wood	135 00
John Sallows, plowing, etc.	94 00
G. W. Rines, well boring	88 20
Hancock & Regnart, meats	75 05
S. Oberdeener, drugs and medicines	59 15
Dr. A. E. Osborne, Superintendent, contingent expenses	26 60
Pacific Manufacturing Company, lumber	21 03
R. A. Swain & Co., crockery	18 79
A. Clement Kropp, musical supplies	14 00
Mrs. E. A. Yard, fruit, etc.	10 94
J. W. Findlay, Trustee, traveling expenses	10 85
J. Cereghino, vegetables and fruits	10 15
Mrs. E. Hillman, poultry	8 50
E. H. Guppy & Son, stationery	5 15
Loftus Bros., engineer supplies	3 80
	<hr/>
	\$2,936 22

1890—January 27—Payroll for the month of December, 1889, salaries	\$1,159 00
The Farmers Union, supplies	263 90
Ant. Fatjo, supplies	183 25
J. B. O'Brien, dry goods, clothing, etc.	152 25
G. W. James, provisions	93 03
B. Hicks, shoes and repairs	81 05
Hancock & Regnart, meats	80 85
Dr. A. E. Osborne, Superintendent, contingent expenses	76 67
R. Menzell, kitchen and plumbers' supplies	65 13

American Steam Boiler Insurance Company, insurance	\$37 50	
Peter Hughes, dried fruit	31 09	
William Harney, Trustee, traveling expenses	22 80	
S. Oberdeener, drugs and medicines	21 44	
Seymour J. Fisher, carpenter work, etc.	20 25	
Pacific Manufacturing Company, lumber	17 97	
"San José Times," advertising supplies	16 00	
Pulsometer Steam Pump Company, pump castings	14 74	
Julia M. Judah, Trustee, traveling expenses	14 00	
Katherine B. Lathrop, Trustee, traveling expenses	12 80	
S. M. Stearns, eggs, etc.	12 40	
Geo. W. Gibbs, Trustee, traveling expenses	10 50	
E. H. Guppy & Son, stationery	9 10	
Chas. A. Murdock, Trustee, traveling expenses	6 40	
T. E. Gallup, dental services	6 00	
San José Agricultural Works, repairs to cart	6 00	
Geo. B. McKee & Co., paints and brushes	1 55	
		\$2,415 87
1890—February 17—Payroll for the month of January, salaries	\$1,105 60	
J. B. O'Brien, dry goods and clothing	117 98	
John Sallows, wood	221 56	
Farmers Union, supplies	189 04	
Ant. Fatjo, supplies	133 65	
G. W. James, provisions	106 98	
Hancock & Regnart, meats	81 95	
A. E. Osborne, M.D., Superintendent, contingent expenses	58 65	
S. Hustache, wood	58 38	
S. Oberdeener, drugs and medicines	48 40	
Thos. Bullock, milk	47 34	
J. P. Norton, cow	45 00	
S. M. Stearns, eggs	21 60	
J. Cereghino, vegetables and fruit	18 15	
A. Withrow, repairs to harness, etc.	7 45	
S. Foster & Co., supplies	4 75	
The Bancroft Company, school supplies	2 40	
Cunningham, Curtiss & Welch, stationery and supplies	30 34	
E. G. Guppy & Son, stationery and supplies	1 28	
		\$2,300 50
1890—March 29—Payroll for the month of February, salaries	\$1,104 21	
Farmers Union, supplies	249 82	
John Rosenfelds Sons, fuel	244 85	
Ant. Fatjo, supplies	142 43	
J. B. O'Brien, dry goods, etc.	102 24	
G. W. James, provisions	80 65	
Hancock & Regnart, meats	74 35	
Board of Trustees, freight on coal	63 31	
Thos. Bullock, milk	62 34	
S. Hustache, wood	55 25	
R. Menzell, plumbing and supplies	54 11	
B. Hicks, shoes and repairing	44 35	
Dr. A. E. Osborne, Superintendent, contingent expenses	34 10	
John Sallows, fuel	27 83	
S. Oberdeener, drugs and medicines	22 22	
Mrs. E. A. Yard, dried fruit	18 49	
S. Foster & Co., supplies	18 00	
S. M. Stearns, eggs, etc.	14 30	
J. Cereghino, vegetables	13 40	
Pacific Manufacturing Company, lumber	9 36	
M. J. Stafford, newspapers	7 00	
J. C. Plummer, fuel	6 94	
H. A. Pfister, supplies	6 60	
Jno. A. Nace, stationery	5 55	
T. E. Gallup, dental services	5 00	
W. F. Wilson, light	4 00	
		\$2,470 70
1890—April 17—Payroll for the month of March, salaries	\$1,021 33	
Farmers Union, supplies	248 15	
Dr. A. E. Osborne, Superintendent, contingent expenses	111 95	
Ant. Fatjo, supplies	93 75	
G. W. James, provisions	82 06	
J. B. O'Brien, dry goods, etc.	48 09	
S. Oberdeener, drugs and medicines	27 15	
J. Cereghino, vegetables	22 50	
S. M. Stearns, eggs, etc.	20 90	
Thos. Bullock, milk	19 68	
S. Foster & Co., supplies	8 25	

E. H. Guppy & Son, stationery	\$3 25
R. A. Swain & Co., crockery	2 88
Maurice O'Brien, candy	2 50
Hancock & Regnart, meats	78 20

\$1,790 64

1890—May 16—Payroll for the month of April, salaries	\$954 11
Farmers Union, supplies	262 14
John Sallows, farm work	118 12
Dr. A. E. Osborne, Superintendent, contingent expenses	79 43
R. Menzell, plumbing and plumbers' supplies	78 26
Geo. W. James, provisions	75 65
Ant. Fatjo, supplies	73 90
Hancock & Regnart, meats	69 60
J. B. O'Brien, dry goods, etc.	65 98
S. Oberdeener, drugs and medicines	52 86
B. Hicks, shoes and repairing	49 65
William Fleury, undertaker	25 00
S. M. Stearns, eggs, etc.	16 50
J. Cereghino, vegetables	15 80
W. E. Wadams, veterinary services	14 00
Pacific Manufacturing Company, lumber, etc.	11 86
Geo. B. McKee & Co., paint, etc.	7 10
T. E. Gallup, dental services	6 50
Mrs. E. A. Yard, eggs, etc.	5 50
E. H. Guppy & Son, stationery	5 10
Osborn & Alexander, school supplies	2 50

\$1,989 56

1890—June 23—Payroll for the month of May, salaries	\$981 85
Farmers Union, supplies	211 85
Ant. Fatjo, supplies	135 00
G. C. Jenkins, agent, insurance	109 44
J. B. O'Brien, dry goods, etc.	77 61
G. W. James, provisions	62 30
Scurr & Hetherington, wood	60 00
I. N. Thompson, pasturage	55 00
Hancock & Regnart, meats	39 95
S. Oberdeener, drugs and medicines	37 13
Dr. A. E. Osborne, Superintendent, contingent expenses	35 45
R. J. Langford, pasturage	29 00
S. M. Stearns, eggs, etc.	23 05
Wm. Fleury, undertaker	20 00
J. Cereghino, vegetables	17 05
Pacific Manufacturing Company, lumber	14 50
Geo. B. McKee & Co., paints, etc.	8 50
Theo. Messenger, hair cutting	7 20
S. Foster & Co., supplies	8 25
Edward Myall, poultry	6 00
Mrs. E. A. Yard, eggs	3 85

\$1,942 98

1890—July 23—Payroll for the month of June, salaries	\$931 22
The Farmers Union, supplies	190 62
J. B. O'Brien, dry goods and clothing	114 98
John A. Day, blacksmithing and repairs	114 50
Ant. Fatjo, supplies	104 65
John Sallows, farm labor	89 20
G. W. James, provisions	83 06
B. Hicks, shoes and repairs	70 50
Dr. A. E. Osborne, Superintendent, contingent expenses	61 10
Hancock & Regnart, meats	54 35
Priames & Madden, kalsomining, etc.	47 50
R. Menzell, plumbers' supplies and repairs	39 17
Mrs. Katherine B. Lathrop, Trustee, traveling expenses	35 10
San Francisco "Chronicle," advertising supplies	30 40
T. Klinkerfushc, repairs to boiler furnace	30 00
Mrs. Julia M. Judah, Trustee, traveling expenses	27 50
S. Oberdeener, drugs and medicines	21 52
Santa Clara "Journal," advertising supplies and printing	21 25
W. T. Garratt & Co., castings for boiler furnace	18 20
Jos. Silvia, labor on farm	18 00
E. J. Baker, coal	17 70
S. M. Stearns, fruit and eggs	17 67
"Sonoma Democrat" Publishing Company, advertising sup- plies	15 00
Osborn & Alexander, machinist supplies	13 20
William Harney, Trustee, traveling expenses	11 90
J. Cereghino, vegetables	11 50

J. M. Raney, livery expenses.....	\$11 50
A. A. Withrow, harness repairs, etc.....	10 25
Geo. W. Gibbs, Trustee, traveling expenses.....	8 70
H. A. Pfister, lime, salt, etc.....	6 15
H. Agnews, poultry.....	6 00
M. J. Stafford, newspapers.....	5 60
Geo. B. McKee & Co., paper hangings.....	4 65
Mrs. E. A. Yard, eggs.....	3 58
R. A. Swain & Co., crockery.....	2 22
	<hr/> \$2,248 44
	\$30,374 21

SCHEDULE D.

PAYMENTS MADE FROM THE STATE APPROPRIATION FOR MAINTENANCE AT HILLGIRT (GLEN ELLEN) DURING THE FORTY-FIRST FISCAL YEAR, ENDING JUNE 30, 1890.

1890—February 17—Payroll for the month of January, salaries.....	\$150 00	
J. B. O'Brien, dry goods, etc.....	177 60	
J. E. Kearney, seed for planting.....	52 10	
Woodin & Little, agricultural implements.....	43 70	
Cunningham, Curtiss & Welch, stationery.....	9 40	
Woody Maslin, traveling and contingent expenses.....	33 15	
R. J. Dowdall, seed grain for planting.....	20 00	
Chas. Pifaro, labor.....	10 94	
Burt Megroni, labor.....	10 94	
C. O. Borman, material for fencing.....	10 85	
E. H. Guppy & Son, stationery.....	4 47	
Dewey & Co., stationery.....	3 00	
The Bancroft Company, stationery.....	2 95	
C. A. Wright & Co., stationery.....	1 55	
	<hr/>	\$530 65
1890—April 1—M. Broughler, pruning trees.....	\$310 00	
Baptista Madonna, pruning vines.....	158 80	
R. J. Dowdall, pruning orchard.....	130 00	
S. V. Cooper, pruning trees.....	100 00	
Justinian Caire & Co., spraying material.....	91 78	
Woody Maslin, salary and contingent expenses.....	87 00	
Chas. H. Crofoot, boarding men, etc.....	73 29	
John H. Hill, labor with teams.....	34 00	
Edward Townsend, labor.....	21 57	
Geo. Riley, labor.....	16 00	
Wm. A. Elsdon, labor.....	15 00	
Angello Palleti, labor.....	13 88	
Robt. Collin, labor.....	12 00	
Maurice O'Flanagan, labor.....	9 00	
Pietro Daldos, labor.....	9 00	
T. J. Sullivan, blacksmithing, etc.....	6 50	
J. W. Bagge, labor.....	4 00	
Frank Hendley, labor.....	4 00	
J. Botsler, labor.....	3 00	
Peter Brancina, labor.....	3 00	
August DeCarle, labor.....	3 00	
John Brancina, labor.....	3 00	
Chas. J. Poppe, labor.....	2 75	
Jas. A. Box, plowing and seeding fifty acres.....	187 50	
Robt. P. Hill, salary and contingent expenses.....	80 15	
Bartholomew Megroni, labor.....	29 62	
Chas. Pifaro, labor.....	28 13	
W. McPherson Hill, wire for fencing.....	14 37	
John H. Hill, hauling gravel.....	8 00	
C. O. Borman, hardware supplies.....	5 70	
	<hr/>	\$1,464 04
1890—April 19—Payroll for the month of March, salaries and wages		
—fruit department.....	\$399 65	
Payroll for the month of March, salaries and wages—agri-		
cultural department.....	162 25	
M. Broughler, pruning.....	252 16	
S. V. Cooper, pruning.....	150 00	
R. J. Dowdall, plowing orchard.....	130 00	
James A. Box, plowing vineyard.....	120 00	
Chas. H. Crofoot, board of men.....	103 33	
Mrs. E. Overton, board of men.....	10 00	

C. O. Borman, supplies	\$8 64	
A. Harrison, board of man	7 00	
C. J. Poppe, supplies	2 60	
Geo. Hood & Son, supplies	2 50	
		\$1,348 13

1890—May 17—Payroll for the month of April, salaries and wages—fruit department	\$575 13	
Payroll for the month of April, salaries and wages—agricultural department	193 25	
Payroll for the month of April, salaries and wages—household department	60 00	
R. J. Dowdall, plowing orchard	227 50	
James A. Box, plowing	200 00	
E. C. Zane, plowing	195 00	
W. W. Ellis, grafting	141 45	
S. V. Cooper, pruning	89 80	
S. Oberdeener, drugs and medicines	39 55	
Huntington-Hopkins Company, supplies	32 50	
Justinian Caire & Co., Paris green	18 50	
Chas. J. Poppe, supplies	10 11	
N. E. Dowdall, supplies	9 97	
S. Foster & Co., supplies	7 50	
Osborn & Alexander, supplies	4 50	
Geo. Allemann, eggs	3 04	
C. J. Poppe, supplies	2 70	
Chas. H. Crofoot, boarding	2 50	
H. Castaginacco, vegetables	2 35	
Hayes & Kopf, lime	2 25	
G. W. Beatty, meats	31 65	
		\$1,849 25

1890—June 28—Payroll for the month of May, salaries and wages—fruit department	\$365 25	
Payroll for the month of May, salaries and wages—agricultural department	175 50	
• Payroll for the month of May, salaries and wages—household department	84 50	
W. McP. Hill, supplies	228 33	
Pacific Improvement Company, horses, wagon, and harness	220 00	
E. C. Zane, plowing and labor, vineyard	116 60	
R. J. Dowdall, plowing orchard and vineyard	90 09	
William Green, lumber, etc.	62 13	
S. Foster & Co., supplies	61 97	
Home Mutual Insurance Company, insurance	60 00	
Southern Pacific Railroad, freight	58 86	
Board of Trustees, contingent expenses	52 95	
Huntington-Hopkins Company, supplies	51 31	
E. W. Hilgard, vine cuttings	38 50	
Jno. H. Hill, labor and team	36 40	
Thos. Ellis, mowing and raking hay	36 00	
Geo. W. Beatty, meats	27 00	
Hayes & Kopf, poultry	20 25	
M. O. Hanagan, labor	14 00	
Frank Hendley, labor	12 00	
Edward Townsend, labor	11 50	
Whittier, Fuller & Co., rubber paint	9 15	
Kate McCarthy, house servant	6 25	
Mrs. Diebold, laundress	6 00	
W. W. Montague & Co., supplies	4 73	
Wm. Schmidt, blacksmithing	4 50	
H. Castaginacco, vegetables	4 05	
Robt. P. Hill, contingent expenses	3 20	
J. G. Marcy, repairs	3 00	
Woodly Maslin, contingent expenses	2 60	
John H. Hill, teaming	2 40	
J. M. Roney, ice, etc.	2 00	
Woodin & Little, supplies	1 54	
Geo. Brietenback, repairs	1 25	
Bert. Wilson, washing	1 10	
M. Laloli, washing	60	
		\$1,875 51
1890—May 1—S. Foster & Co., supplies		173 82
1890—July 1—Payroll for June, salaries and wages—fruit department	\$225 00	
Payroll for June, salaries and wages—agricultural department	172 50	
Payroll for June, salaries and wages—household department	60 00	

George Riley, cultivating vineyard and orchard	\$91 88
R. J. Dowdall, cultivating and harrowing vineyard and orchard	88 85
S. Foster & Co., supplies	51 86
J. H. Hill, horse (\$50) and labor (\$5 30)	55 30
Thos. Ellis, mowing and raking	50 00
J. V. Minor, carpentering	38 50
San Francisco and North Pacific Railway Company, freight	33 30
Geo. W. Beatty, meats	30 10
Brown & Wells, potatoes	29 95
W. McPherson Hill, supplies	22 62
Osborn & Alexander, hardware	22 50
Woodly Maslin, contingent expenses, May and June	40 20
M. Broughler, cuttings and pruning	19 50
Redington & Co., sulphur, etc.	15 69
J. M. Roney, ice	10 90
"Sonoma Democrat" Publishing Company, printing	6 50
J. Caire & Co., supplies	6 28
Whittier, Fuller & Co., paints	5 75
H. Castagnacco, vegetables	5 00
William Green, lumber	4 91
Sam'l J. Kingston, stencil and alphabet	4 00
Thomas Meherin, seeds	4 00
William Schmidt, blacksmithing	3 75
John Staley, blacksmithing	2 00
Charles McHarvey, blacksmithing	2 00
	<hr/>
	\$1,102 84
	<hr/>
	\$8,344 24

SCHEDULE E.

PAYMENTS MADE FROM THE STATE APPROPRIATION FOR A "PERMANENT SITE-AND TO ERECT BUILDINGS THEREON," DURING THE FORTY-FIRST FISCAL YEAR, ENDING JUNE 30, 1890.

1889—October 3—San Francisco "Bulletin" Company, advertising for a site	\$12 00
San Francisco "Chronicle," advertising for a site	16 80
San Francisco "Call" Company, advertising for a site	12 00
San José "Morning Times," advertising for a site	8 00
Sacramento Publishing Company, advertising for a site	16 00
"Tribune" Publishing Company, advertising for a site	8 00
Cunningham, Curtiss & Welch, stationery supplies for Commission	15 60
San Francisco "News Letter," advertising for a site	4 00
The "Argonaut" Company, advertising for a site	4 00
The "Morning Times," advertising for a site	5 25
"Evening Post" Publishing Company, advertising for a site	5 00
The "Examiner," advertising for a site	12 00
S. F. Barstow (Marin "Journal"), advertising for a site	3 00
Mrs. Katherine B. Lathrop, President of Commissioners, expenses incurred visiting site	7 75
Geo. W. Gibbs, Commissioner, expenses incurred visiting site	7 65
Oliver Eldridge, Commissioner, expenses incurred visiting site	7 65
J. W. Findlay, Commissioner, expenses incurred visiting site	8 75
William Harney, Commissioner, expenses incurred visiting site	7 65
Mrs. J. M. Judah, Commissioner, expenses incurred visiting site	5 00
B. F. LeWarne, Secretary Commissioners, expenses incurred visiting site	7 65
B. F. LeWarne, Secretary Commissioners, salary for the month of April	75 00
B. F. LeWarne, Secretary Commissioners, expenses for postage, etc.	1 80
Mrs. Katherine B. Lathrop, President of Commissioners, expenses incurred visiting site	9 30
William Harney, Commissioner, expenses incurred visiting site	5 80

Geo. W. Gibbs, Commissioner, expenses incurred in visiting site	\$9 30	
Charles A. Murdock, Commissioner, expenses incurred in visiting site	12 55	
Jas. W. Findlay, Commissioner, expenses incurred visiting site	29 00	
Oliver Eldridge, Commissioner, expenses incurred visiting site	12 55	
Mrs. J. M. Judah, Commissioner, expenses incurred visiting site	17 90	
B. F. LeWarne, Secretary Commissioners, expenses incurred visiting site	12 55	
B. F. LeWarne, Secretary Commissioners, salary for the month of May	75 00	
Mrs. Katherine B. Lathrop, President of Commissioners, expenses incurred visiting site	10 50	
Jas. W. Findlay, Commissioner, expenses incurred visiting site	10 80	
Mrs. J. M. Judah, Commissioner, expenses incurred visiting site	11 45	
Chas. A. Murdock, Commissioner, expenses incurred visiting site	10 40	
William Harney, Commissioner, expenses incurred visiting site	11 50	
Geo. W. Gibbs, Commissioner, expenses incurred visiting site	9 60	
Oliver Eldridge, Commissioner, expenses incurred visiting site	6 50	
B. F. LeWarne, Secretary Commissioners, incidental expenses, postage, etc.	3 70	
B. F. LeWarne, Secretary Commissioners, salary for the month of June	75 00	
B. F. LeWarne, Secretary Commissioners, expenses incurred visiting site	13 20	
Chas. A. Murdock, Commissioner, expenses incurred visiting site	7 65	
B. F. LeWarne, Secretary Commissioners, incidental expenses for month of May	4 30	
Allen B. Lemmon, Santa Rosa "Republican," advertising for a site	2 25	
		\$611 35
1889—October 24—Mrs. Katherine B. Lathrop, President of Commission, expenses incurred visiting sites	\$6 95	
Mrs. J. M. Judah, Commissioner, expenses incurred visiting sites	9 95	
Oliver Eldridge, Commissioner, expenses incurred visiting sites	13 05	
Geo. W. Gibbs, Commissioner, expenses incurred visiting sites	33 25	
Chas. A. Murdock, Commissioner, expenses incurred visiting sites	13 95	
Jas. W. Findlay, Commissioner, expenses incurred visiting sites	25 40	
B. F. LeWarne, Secretary Commissioners, expenses incurred visiting sites	18 90	
William Harney, Commissioner, expenses incurred visiting sites	33 25	
"Mercury" Printing and Publishing Company, San José, advertising for site	12 50	
		\$167 20
1889—November 27—Board of Trustees, California Home Feeble-Minded Children, costs of Court, Board of Trustees vs. J. P. Dunn, Controller	25 00	
December 5—Purchase money for the Hill Ranch (Glen Ellen)	50,000 00	
1890—January 28—William Smith, expert opening quarry, etc.	30 00	
February 22—J. A. Barham, attorney fees (road case)	52 00	
April 17—Board of Trustees California Home Feeble-Minded Children, express charges on \$50,000 coin for site	\$37 50	
Haggin, Van Ness & Dibble, attorney fees, Board of Trustees vs. J. P. Dunn, Controller	1,052 70	
		1,090 20
May 3—Barclay Henley, attorney fees, J. Chauvet vs. W. McP. Hill	18 25	
June 30—Copeland & Peirce, architects, plans and specifications	\$1,900 00	
Sacramento Publishing Company, advertising contract for building	30 00	

San Francisco "Chronicle," advertising contract for building.....	\$29 60	
"The Examiner" of San Francisco, advertising contract for building.....	25 00	
		\$1,984 60
		\$53,978 60

SCHEDULE F.

PAYMENTS MADE FROM THE STATE APPROPRIATION FOR "FURNISHING" AT HILLGIRT, DURING THE FORTY-FIRST FISCAL YEAR, ENDING JUNE 30, 1890.

1890—April 17—J. B. O'Brien, mattresses, pillows, and blankets.....	\$436 20	
R. A. Swain & Co., crockery, etc.....	139 52	
R. A. Swain & Co., crockery, etc.....	26 55	
Miss Lida L. Hill, carpets, wardrobes, etc.....	183 00	
W. A. Schrock, iron bedsteads.....	132 00	
		\$917 27
1890—May 3—California Furniture Mfg. Co., house furniture.....	\$1,064 40	
Wakefield Rattan Company, cane furniture.....	121 45	
W. W. Montague & Co., kitchenware.....	54 87	
O'Connor, Moffatt & Co., table linen.....	42 35	
Macondray & Co., matting.....	16 00	
R. A. Swain & Co., crockery.....	9 90	
Osborn & Alexander, houseware.....	17 97	
		\$1,326 92
1890—May 16—Huntington-Hopkins Company, working utensils.....	\$133 67	
W. J. Sloane & Co., carpets, rugs, etc.....	92 93	
J. B. O'Brien, blankets, etc.....	54 50	
W. W. Montague & Co., dairy and kitchen utensils.....	52 10	
W. T. Garratt & Co., institution bell.....	17 82	
Revere Rubber Company, hose.....	16 00	
W. McPherson Hill, working utensils.....	14 50	
W. C. Good & Co., working utensils.....	13 75	
Macondray & Co., matting.....	8 00	
Wiester & Co., parlor stove.....	5 50	
Market-Street Trunk Store, mail bag.....	5 50	
		\$414 27
1890—June—W. W. Montague & Co., kitchen utensils.....	\$63 56	
R. A. Swain & Co., crockery.....	54 00	
Huntington-Hopkins Company, tools, etc.....	39 45	
Samuel Beal, hair bolsters.....	21 00	
Davis Brothers, houseware.....	10 26	
B. & J. S. Doe, screens.....	7 60	
		\$195 87
1890—June 30—J. B. O'Brien, mattresses, pillows, and blankets.....	\$150 30	
W. A. Schrock, iron bedsteads.....	84 00	
Holbrook, Merrill & Stetson, bath.....	44 00	
R. A. Swain & Co., crockery.....	36 24	
Holbrook, Merrill & Stetson, furniture.....	21 88	
O'Connor, Moffatt & Co., quilts and spreads.....	21 40	
Davis Brothers, mirror, etc.....	15 80	
Robert P. Hill, hay buck.....	10 25	
John H. Hill, beehive.....	4 50	
		\$388 37
		\$3,242 70

SCHEDULE G.

PAYMENTS MADE FROM THE STATE APPROPRIATION "TO PROVIDE A SYSTEM OF WATER SUPPLY AND SEWERAGE, AND TO IMPROVE THE GROUNDS," DURING THE FORTY-FIRST FISCAL YEAR, ENDING JUNE 30, 1890.

1890—May 16—San Francisco Sewer Pipe Company, sewer pipe and cement.....	\$91 28	
J. V. Minor, cement and carpenter work.....	20 50	
		\$111 78
1890—July—J. V. Minor, sewer work and plumbing.....		17 50
Total.....		\$129 28

SCHEDULE H.

CLASSIFIED EXPENDITURES DURING THE FORTY-FIRST FISCAL YEAR.

On Account of Maintenance at Santa Clara.

1890—June 30—For bakery (equipment and altering building).....	\$1,000 43
For clothing.....	344 40
For crockery.....	63 18
For dry goods, etc.	858 64
For express and freight.....	116 46
For expense account, i. e., lumber, repairs, blacksmithing, etc.	1,012 49
For farm account.....	542 16
For feed for stock.....	516 13
For fish and poultry.....	90 25
For fuel (coal and wood).....	2,250 00
For furniture.....	351 87
For groceries, etc.	3,752 05
For hardware.....	28 25
For insurance.....	146 94
For ice.....	147 57
For kitchen and woodenware.....	95 47
For laundry supplies.....	638 96
For light.....	383 86
For meats and provisions.....	1,772 75
For medicines and attendance.....	607 12
For postage, box rent, and stamps.....	95 17
For shoes and repairing.....	321 30
For stock (live).....	200 00
For sewerage and drainage (cleaning cesspools).....	100 00
For salaries and wages.....	13,476 34
For stationery.....	120 40
For telegraph and delivery.....	40 15
For traveling expenses.....	397 40
For vegetables.....	645 84
For water (boring and equipping new well).....	258 63
	<hr/> \$30,374 21

On Account of Maintenance at Hillgirt (as Segregated).

Account of fruit and horticultural department.....	\$5,269 85
Account of agricultural department.....	1,762 95
Account of household department.....	1,046 81
Account of general expenses.....	264 63
	<hr/> \$8,344 24

Account of Selection of Site and Erection of Buildings (as Segregated).

Account of site (the W. McPherson Hill Ranch, Hillgirt).....	\$50,000 00
Account of advertising for site.....	136 40
Account of salary (Secretary of Commission).....	225 00
Account of traveling expenses of Commission and Secretary.....	407 35
Account of expenses (stationery, postage, etc.).....	77 30
Account of legal expenses in suit, Trustees vs. Controller.....	1,147 95
Account of advertising for proposals on account of building.....	84 60
Account of plans and specifications of building.....	1,900 00
	<hr/> \$53,978 60

SCHEDULE I.

Cash from parents and guardians on account of tuition and maintenance....	\$2,832 00
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SCHEDULE J.

STATE APPROPRIATION ACCOUNT SHOWING AVAILABLE BALANCES FOR THE FORTY-SECOND FISCAL YEAR.

Account of Maintenance.

DR.	
1889—July 1—To (biennial) State appropriation.....	\$81,000 00
CR.	
1890—July 1—By warrants and coin received from State Controller during forty-first fiscal year.....	38,718 45
To balance of said appropriation available for the forty-second fiscal year.....	\$42,281 55

Account of Site and Buildings.

DR.		
1889—	July 1—To State appropriation.....	\$170,000 00
CR.		
1890—	July 1—By warrants and coin received from State Controller during forty-first fiscal year.....	53,981 10
	To balance of said appropriation available for the forty- second fiscal year.....	\$116,018 90

Account of Furnishing.

DR.		
1889—	July 1—To State appropriation.....	\$15,000 00
CR.		
1890—	July 1—By warrants and coin received from State Controller during forty-first fiscal year.....	3,242 70
	To balance of said appropriation available for the forty- second fiscal year.....	\$11,757 30

Account of Water, Sewerage, and Improvement of Grounds.

DR.		
1889—	July 1—To State appropriation.....	\$15,000 00
CR.		
1890—	July 1—By warrants and coin received from State Controller during forty-first fiscal year.....	129 28
	To balance of said appropriation available for the forty- second fiscal year.....	\$14,870 72

SCHEDULE K.

RECEIVED FROM FARM PRODUCTS, ETC.

Milk, 27,455 quarts at 7 cents	\$1,921 85
Eggs, 2,395 at 2½ cents	59 88
Potatoes, 4,589 pounds at 1½ cents	57 36
Tomatoes, 113 boxes at 50 cents	56 50
Corn, 1,886 ears at 1 cent	18 36
Squash, 3,288 at 2½ cents	82 20
Cucumbers, 2,670 at 1 cent	26 70
Melons, 171 at 10 cents	17 10
Cabbage, 24 at 5 cents	1 20
Pumpkins, 1,000 pounds at ½ cent	5 00
Beets, 365 pounds at 1 cent	3 65
Peas, 163 pounds at 5 cents	8 15
Peaches, 3,761 pounds at 2½ cents	94 00
Apricots, 243 pounds at 2½ cents	6 07
Grapes, 492 pounds at 2½ cents	8 30
Almonds, 41 pounds at 10 cents	4 10
Hay, 20¾ tons at \$10	207 50
Pork, 5,584 pounds	530 48
Calves, 5 sold at	30 00
	<u>\$3,138 40</u>
Expenditures of farm:	
Farm expenses, plowing, seeding, cultivating, etc.	\$542 16
Feed for stock	516 13
Live stock	200 00
Farmers' wages	360 00
	<u>1,618 29</u>
	<u>\$1,520 11</u>

The above table does not include the estimated value of several acres sowed to wheat that were diverted to pasturage and supported an average of twenty head for four months. At the usual rate of \$1 50 per head per month, this would make \$120 to be added to the value of the farm's yield, or a total profit over all expenditures of \$1,640 11.

INVENTORY AT SANTA CLARA, JUNE 30, 1890.

ARTICLE.	Cost Price.	Market Value.
Four albums, picture.....		\$1 00
One box alphabet cards.....		50
Three alphabet charts.....	\$0 50	1 50
One anvil and block.....		18 00
Twenty-five pounds apples, dried.....	06	1 50
One apple parer.....		50
Two aprons, buttoned.....	50	1 00
Eight Argand burners and chimneys.....	1 25	10 00
One auger.....		50
Three axes and handles.....	1 25	3 75
One piece bacon.....		90
Five pounds baking powder.....	40	2 00
One banner, wall.....		5 00
Five hundred pounds barley.....	01	5 00
One basket, bread.....		70
Three baskets, card.....	50	1 50
Two baskets, house.....	60	1 20
Three baskets, hamper, large.....	6 00	18 00
Four baskets, hamper, medium.....	1 25	5 00
Seven baskets, laundry.....	1 60	11 20
Three baskets, waste.....	60	1 80
Eight baskets, work.....	50	4 00
Three barrels, water.....	1 25	3 75
Ten basins, wash, stationary.....	12 00	120 00
Eleven basins, hand.....	50	5 50
Eight basins, tin.....	25	2 00
One bass viol.....		21 00
Nine baths and fixtures.....	20 00	180 00
One battery, galvanic.....		75 00
Three boxes beads, colored.....	30	90
Ten pounds beans.....	02½	25
One hundred and twenty-one bedsteads, iron, single.....	7 00	847 00
Two bedsteads, iron, double.....	11 00	22 00
Six bedsteads, wood..... aggregate		139 00
One bedpan.....		1 50
One piece beef, dried.....		1 25
Two hundred and twenty-five feet belting, leather..... average cost		51 60
Thirty-seven feet belting, rubber.....	50	18 50
One bell, institution.....		12 75
One bell, electric.....		2 00
Three bells, dining.....	1 25	3 75
Two bells, school.....		1 50
Twelve benches, school (102 feet).....	40	40 80
Four benches, work.....	1 25	5 00
Three benches, wash.....	1 50	4 50
Six benches, porch.....	2 25	13 50
Five benches, kindergarten.....	50	2 50
Forty-six bibs.....	15	6 90
One billholder.....		60
Three bins, bread.....	6 00	18 00
Three bins, meal.....	6 00	18 00
Four bits and bridles.....	1 75	7 00
Eight bits, carpenter.....	25	2 00
Eleven boxes blacking, shoe.....	05	55
Two packages blacking, stove.....	85	1 70
Thirteen blackboards, school.....	4 50	58 50
Six blackboard erasers.....	05	30
Two hundred and eighteen and one half pair blankets, colored.....	4 50	983 25
Twelve pair blankets, white.....	8 00	96 00
Four pair blankets, table.....	3 00	12 00
Two and one half pair blankets, ironing.....	3 00	7 50
Three pair blankets, horse.....	4 00	12 00
One hundred and twenty pair blinds, window.....	1 00	120 00
Two boxes blocks, A B C, school.....		50
One box blocks, colored.....		30
One box blocks, figures.....		35
One set blocks, mosaic.....		50
One box blocks, plain.....		25
Nine blocks, repoussé.....	60	5 40
Two sets block and fall.....		5 00

INVENTORY AT SANTA CLARA—Continued.

ARTICLE.	Cost Price.	Market Value.
Six sheets blotting pads and holders.....		\$1 60
Four blowers, fire.....	\$0 60	2 40
One board, backgammon.....		50
Two boards, bread.....		1 00
Nine boards, form, school.....		4 50
Two boards, meat.....		1 50
Nine boards, peg, school.....		90
One board, card, perforated.....		20
One board, bosom.....		3 00
One board, drawing.....		50
Four boards, skirt.....	3 50	14 00
One boar.....		15 00
One boiler, range.....		34 00
One half barrel boiler compound.....		2 60
One patent boiler, combination.....		7 50
Three boilers, kitchen.....	3 50	10 50
Two boilers, mush.....	4 50	9 00
One book, bible.....		4 00
Twelve books, copy.....	10	1 20
On book, dictionary.....		12 00
Two books, directories.....		7 50
Twelve books, geographies.....		7 20
Thirty-two books, hymnals.....	75	24 00
Four books, letter press.....	75	3 00
Three books, State Codes, etc.....		3 00
Twenty books, Readers, No. 1.....	10	2 00
Six books, Readers, No. 2.....	20	1 20
Twelve books, Readers, No. 3.....	27	3 24
Twelve books, Readers, No. 4.....	33	3 96
Four books, statutes and amendments.....		5 00
Forty books, school (unused).....	15	6 00
Nine books, tales.....	40	3 60
Books, Institution Library.....		50 00
Two book-rests.....	75	1 50
Six bowls, cooking.....	45	2 70
One bowl, chop.....		1 50
Two bowls, gravy.....		1 20
One hundred and twenty-seven bowls, mush.....	10	12 70
Twenty bowls, soup.....	21	4 20
Five bowls, sugar.....	1 00	5 00
Twelve sets bowhair for instruments.....	25	3 00
One box, cake, tin.....		1 50
Four boxes, coal and wood.....	1 25	5 00
Two boxes, document, iron.....	7 00	14 00
One brace and bits.....		3 00
Twelve brackets, lamp.....	40	4 80
Eighty-three brackets, gas, with burners.....	50	41 50
Six bricks, bath.....	10	60
Two broilers.....	1 50	3 00
Sixty brooms, corn.....	25	15 00
Two brooms, stable.....	50	1 00
Eight brooms, school drill.....	20	1 60
Twenty-five brooms, whisk.....	04½	3 13
Eleven skeins braid, feather edge.....	05	55
Four skeins braid, serpentine.....	05	20
Two pieces braid, dress.....	05	10
Two brushes, crumb.....	25	50
Ten brushes, dust.....	60	6 00
One brush, glue.....		25
Six brushes, hand.....	25	1 50
Two brushes, horse.....	50	1 00
Seven brushes, paint.....	30	2 10
Eighteen brushes, scrub.....	20	3 60
Thirty brushes, shoe.....	21	6 30
Six brushes, stove.....	21	1 26
Twelve brushes, toilet.....	30	3 60
Four dozen brushes, tooth.....	1 25	5 00
Two brushes, wall.....	1 00	2 00
Two brushes, whitewash.....	75	1 50
Thirty buckets, fire.....	50	15 00

INVENTORY AT SANTA CLARA—Continued.

ARTICLE.	Cost Price.	Market. Value.
Six buckets, slop		\$3 00
One bucket, zinc	\$0 50	1 00
One buffett		23 50
Two buffett covers	1 75	3 50
Two buggies		130 00
One bull		25 00
Eighteen bureaus	8 00	144 00
Twelve bushings	20	2 40
Thirty-two pounds butter	25	8 00
Two cards buttons, agate	12	24
Two dozen buttons, collar	25	50
Fifteen dozen buttons, porcelain	04	60
Four dozen buttons, rubber	05	20
One package buttons, shoe		15
Five gross buttons, metal		1 00
One cabinet case (office papers)		35 00
Twelve cake molds		70
Four calves	10 00	40 00
Twelve pounds candy	12 $\frac{1}{2}$	1 50
Fifteen pounds candles	12 $\frac{1}{2}$	1 88
Two candlesticks	20	40
Four cans milk	3 00	12 00
Three cans oil	25	75
Eight cans tomatoes	35	2 80
Ten cans oysters	15	1 50
Fourteen cans corn	10	1 40
Six yards canvas	40	2 40
Five canvas patterns	50	2 50
Twelve canvas pieces	73	9 00
Four canisters	50	2 00
One hundred and fifteen and one half yards carpet, parlor, Superintendent's and drawing-room	1 50	173 25
Two hundred and twenty-five yards carpet, sleeping-rooms	1 12 $\frac{1}{2}$	235 12
Thirteen and one half yards carpet, stairs	2 00	27 00
Four sheets cardboard	20	80
Eight packages cards, sewing and pricking		1 50
One caster, plated		2 50
Three casters, wire	60	1 80
Two gallons catsup	3 00	6 00
Four chairs, carpet rockers	4 50	18 00
One hundred and two chairs, cane seat	1 00	102 00
Two chairs, child's high	1 50	3 00
Four chairs, child's low	75	3 00
Two chairs, invalid		12 00
Two chairs, office, revolving	7 50	15 00
Two chairs, office, arm	3 00	6 00
One hundred and thirty-five chairs, perforated seat	60	81 00
Nine chairs, rockers, large	2 25	20 25
Eight chairs, rockers, sewing	1 50	12 00
One chair, step		1 50
Two boxes chalk	25	50
Twelve chambers	35	4 20
Thirteen chamber toilet sets	2 50	32 50
Six charts, school	50	3 00
Thirty pounds cheese	13	3 90
Thirty-six yards cheviot	09	3 24
Six yards chenille	06	36
One chamois skin		60
Nine chisels, assorted	30	2 70
Three chisels, corner	30	90
Ten chisels, cold	10	1 00
Three chisels, flat	25	75
Five chisels, groove	30	1 50
Six pounds chocolate	20	1 20
Two churns		3 50
One can clams		30
Eight clamps, iron	25	2 00
Nine pair clappers	10	90
One cleaver, meat		1 50
Three clocks, large		75 00

INVENTORY AT SANTA CLARA—Continued.

ARTICLE.	Cost Price.	Market Value.
Two clocks, medium		\$8 50
Five clocks, small	\$1 50	7 50
One clock, toy (school)		50
One thousand feet clothes line, wire		10 00
Five dozen clothes pins		30
Four clothes presses	5 00	20 00
One clothes sprinkler		2 50
One clothes bin		8 00
Six clothes bags	80	4 80
Five yards cloth, rubber	70	3 50
Seventeen cloths, bed	1 50	25 50
Sixty-one cloths, table	2 00	132 00
Five cloths, tray	75	3 75
One pair clubs, Indian		1 00
Four coal scuttles	75	3 00
Two coal shovels	1 25	2 50
Two cans cocoanut	29	58
Fifteen pounds codfish	08	1 20
Fifteen pounds coffee	24	3 60
Two coffee mills		2 50
Two colanders		1 00
Two collars, horse	1 50	3 00
Five collars, pipe	20	1 00
Seventeen combs, dressing	20	3 40
Thirty-four comb and brush holders	25	8 50
Two combs, curry		50
Seventy-two comfortables	1 50	118 00
Seven commodes	4 00	28 00
Eight comforts	60	4 80
One cooler, water		8 75
Five pounds copper, sheet		1 50
Ten pounds cornmeal	02	20
Nine pounds cornstarch	08	72
One corn popper		50
Five cornets	14 00	70 00
One corkscrew		25
Six cots	2 25	13 50
Thirty-nine balls cotton, darning	02 ¹ / ₄	88
Seven pieces cotton, darning	05	35
Seventeen pieces cotton, marking	03	51
Seventeen cows, milch	45 00	765 00
Forty pounds crackers, soda	05 ¹ / ₄	2 20
Ten pounds cracked wheat	02 ¹ / ₂	25
Eighteen cribs, wooden	5 00	90 00
Five crochet hooks	05	25
Two balls crochet thread		10
Four cruets for casters	25	1 00
One cultivator		12 00
Twenty-two cups, agate	06	1 32
Forty-three cups, tea and coffee	06	2 58
Two cups, porcelain	12 ¹ / ₂	25
Five cups, egg	06	30
Five cups and balls (school)		1 00
Twenty cups, tin	05	1 00
Two clips, paper	25	50
Five pounds currants, dried	08	40
Eight cupboard (portable)	5 00	40 00
Eight pair curtains, short	75	6 00
Two pair curtains, lace	4 50	9 00
Twelve pair curtains, chintz	2 00	24 00
One curtain, drop		5 00
One cushion, sofa		2 00
One cuspidor		1 00
One pair compasses, carpenter's		50
One cutter, meat, patent		7 50
Thirty-four and one half yards denims, blue	20	6 90
Two desks, office		45 00
Two desks, teacher's		8 00
Twenty-five desks, school, double	4 00	100 00
Twenty desks, school, single	2 50	50 00

INVENTORY AT SANTA CLARA—Continued.

ARTICLE.	Cost Price.	Market Value.
One desk, stationary		\$1 50
Three desk-rulers	\$0 50	1 50
Thirty-one designs for repoussé	15	4 65
Two sets dies and stamps		16 00
Four dippers	30	1 20
Two diamonds, glazier's		8 00
One demijohn		50
Forty-five dishes, butter	03	1 35
Five dishes, dessert, glass	06	30
Three dishes, fruit, glass	2 50	7 50
Four dishes, meat	50	2 00
Six dishes, pickle	35	2 10
One dish, pudding		50
One hundred and thirty-nine dishes, pudding (small)	05	6 95
Sixteen dishes, soup	10	1 60
Fifty-one dishes, vegetable	60	30 60
One set dishes, toy		1 00
Two donkeys	20 00	40 00
Two drawing knives	50	1 00
One drill, breast		3 50
Six drills, assorted	50	3 00
Four drivers, screw	35	1 40
One set drivers, screw, box		1 50
One drum, bass		7 00
One drum, tenor		15 00
Four pair drumsticks		2 00
Twenty-eight dustpans	15	4 20
Eight dusters, feather	83 ¹ / ₄	6 66
Two pair dumb-bells, iron	50	1 00
Twenty-two pair dumb-bells, wood	40	8 80
Eighteen dozen eggs	27 ¹ / ₂	4 95
Three egg beaters		75
One piece elastic		55
Thirty elbows, pipe	30	9 00
Three hundred and seventy-five envelopes, letter	2 00	75
One thousand seven hundred and fifty envelopes, official	3 00	5 25
One engine and boiler, eight-horse		400 00
One engine and boiler, twelve-horse		860 00
Eight erasers, ink, rubber		80
Four extinguishers, fire, electric		72 00
Forty-eight extinguishers, hand grenades		62 50
Five bottles extract, vanilla	25	1 25
Five bottles extract, lemon	25	1 25
Nineteen files, assorted	15	2 85
One file, flat		20
Two files, three-square		30
Two files, letter	75	1 50
One file, paper		25
Four fire stands	1 25	5 00
Eighty-one fire brick	07	5 67
One flag, American		15 00
Four flags (kindergarten)	2 75	11 00
Twenty-eight flatirons	70	19 60
Four flatiron rings	25	1 00
Six flatiron holders	15	90
One flute		7 00
Seventeen yards flannel, blue	40	6 80
Thirty-seven and one half yards flannel, cotton	09 ¹ / ₂	3 56
Forty fowls	50	20 00
One forge, bellows, and stand		29 00
One hundred and eighty-one forks, table	10	18 10
Sixteen forks, silver-plated	30	4 80
Three forks, carving	40	1 20
Two forks, cooking	40	80
Two forks, hay	75	1 50
Two forks, manure		3 00
Eighty-three jars fruit, quarts	20	16 60
Two freezers, ice cream		22 50
Two funnels		50

INVENTORY AT SANTA CLARA—Continued.

ARTICLE.	Cost Price.	Market Value.
Furniture, parlor suit, consisting of eleven pieces, four vases, three portraits		\$335 75
Gasoline equipments, to wit: generator, regulator, mixer, weights, vault, tank, and pipings		1,225 00
Three hundred gallons gasoline	\$0 20	60 00
One hundred and fifteen gas brackets and burners	60	69 00
Twenty gas globes	25	5 00
Two games for children		1 00
Nine gates, single and double		135 00
Nine packages gelatine	10	90
Twelve pounds ginger	19	2 28
One globe, school		3 00
Two glasses, celery		3 00
Ten lights, glass	30	3 00
Five pounds glue	14	70
Two gas lighters	1 25	2 50
Four pair gloves	20	80
Thirty-three goblets	08	2 64
Three grates and fixtures	4 50	18 50
Two graters, nutmeg		50
One grater, bread		50
One griddle, cake		75
One grindstone and fixtures		4 00
Two gauges, steam	2 50	5 00
Six gauges, water (glass)	20	1 20
Two gauges, carpenter	30	60
One guitar and box		25 00
Forty-eight and three quarters tons hay	10 00	487 50
One pair hay hooks (tongs)		3 00
One hat stand		15 00
One harrow, iron		20 00
Six hammers	75	4 50
One hammer, sledge		1 00
Seventeen pounds ham, smoked	16	2 72
Four handles, mop	40	1 60
Six handles, patent extension handles	75	4 50
Five halters	95	4 75
One set harness, double		75 00
Two sets harness, single		40 00
One set harness, cart		10 00
One set harness, plow		6 00
Twelve sets harness hooks	20	2 40
One bar harness soap		30
One pair hair clippers		1 50
Three hatchets	75	2 25
Four hat racks	75	3 00
One heifer		15 00
Two hitching straps		1 50
Six hoes, garden	60	3 60
Three hampers for clothes	3 00	9 00
Ten pounds hominy		35
Fifteen hogs	7 00	105 00
Two holders for spoons		70
Seven dozen hooks for clothes	40	2 80
Three horses		200 00
Two hundred and fifty feet hose, rubber	25	62 50
Two hose nozzles		1 50
One ice box		4 50
One ice pick		75
Five pounds indigo	20	1 00
Twelve bottles ink	30	3 60
Six ink receivers, cut-glass		9 00
Three ink stands, bronze		4 50
Forty-five ink wells, school	05	2 25
One injector, steam		30 00
Two pounds insect powder	60	1 20
One insect gun		75
One set instruments for drawing		2 50
Fifty-one jars, fruit, glass	10	5 10
Forty ars, fruit, tin	06	2 40

INVENTORY AT SANTA CLARA—Continued.

ARTICLE.	Cost Price.	Market Value.
Two jars, stone	\$0 45	\$0 90
Three jars, slop	50	1 50
Four jugs, molasses		1 60
Five jugs, water		2 00
Three kettles, cooking, agate	2 50	7 50
One kettle, tea, agate		2 50
Two kettles, water		5 00
Two knives, bread		2 50
Three knives, butcher	1 50	4 50
Three knives, butter	25	75
Four knives, carving	1 25	5 00
Two knives, chopping	75	1 50
One knife, putty		30
Ninety-six knives, table	10	9 60
Two knives, vegetable		50
Two ladders, long, fire		25 00
One ladder, tank		3 00
Three ladders, step	aggregate	11 00
Eleven ladles	15	1 65
Four lamps, student	5 00	20 00
Five lamps, stand	aggregate	13 75
Eighteen lamps, ordinary	60	10 80
Sixteen lamp chimneys	10	1 60
Eight lanterns	1 25	10 00
Ten pounds lard	11½	1 15
Laundry equipment, to wit: Two washers, two mangles, wringer, starcher, drier, etc.		1,628 75
One letter press and stand		11 00
Two letter press wells	50	1 00
Two letter press brushes		50
Two letter boxes	25	50
One lemon squeezer		60
One lemonade set, glass		4 50
One level, spirit		4 50
Fourteen yards linen	40	5 60
One hundred and fourteen and one half yards linoleum	90	103 05
Two barrels lime	2 00	4 00
Two lounges		25 00
Three locks, Yale, pad	1 50	4 50
One and one fourth cases lye, concentrated	3 75	4 69
One lubricator, patent		12 00
Two hundred and forty feet lumber, fence, etc.		5 80
Ninety-five leather laces		1 00
One half box macaroni		50
One half kit mackerel		1 00
Twelve maps		24 00
One map rack, iron		12 00
One fourth great gross matches		2 00
Three match cases		45
One hundred and twenty-seven mattresses, hair	4 75	603 25
One hundred and twenty-three mattresses, straw	1 00	123 00
Five mattresses, spring	10 00	50 00
One hundred and sixty mattress covers, cotton	50	80 00
Four mats, door	1 25	5 00
Thirty-six mats, carpet	1 00	36 00
Thirty mats, oil cloth	1 00	30 00
Ten mats, weaving (school)	10	1 00
Seven mats, stove, zinc	70	4 90
One hundred and fifty yards matting	35	52 50
Fifteen yards matting, cocoa	40	6 00
Four mallets, wood	25	1 00
Two mallets, rawhide	25	50
Two martingales, standing	1 25	2 50
Two mashers, potato		1 00
One May pole, with ribbon		4 50
Four measures	45	1 80
Seventeen mirrors	2 00	34 00
One half barrel molasses		12 20
Two molds, steaming	1 50	3 00
One mower, for lawn		9 25

INVENTORY AT SANTA CLARA—Continued.

ARTICLE.	Cost Price.	Market Value.
Ten mops.....	\$0 30	\$3 00
One hundred and twenty-two mugs.....	04	4 88
Ten music stands.....	1 00	10 00
Thirty-nine music books.....	50	19 50
Forty-three pieces music in sheets.....	10	4 30
One music case, wood.....		2 00
Forty-three yards muslin, bleached.....	08	3 44
Nine and one half yards muslin, check.....	12	1 14
Four pounds mustard.....	18	72
One bottle mucilage.....		40
Thirty loads manure.....	1 00	30 00
Medicines and drugs..... estimated		35 00
Four milk cans.....	75	3 00
Fifty-five pounds nails, assorted.....	04½	2 47
One nail cutter.....		60
Four hundred and eighty-seven napkins.....	05	24 35
Seven napkin rings.....		70
Twenty papers needles.....	03½	70
Fourteen papers needles, weaving.....	05	70
Twenty-seven needles, machine.....	05	1 35
One pound nutmegs.....		65
Three nut crackers.....		75
Four gallons oil, machine.....	50	2 00
Four bottles oil, olive.....	1 50	6 00
Five gallons oil, coal.....	30	1 50
Three oil can feeders.....	35	1 05
Two oil cans.....	25	50
One oil stone.....		50
Two oil stoves.....		7 50
Thirty-two yards oilcloth, floor.....	50	16 00
One orchestrone.....		25 00
One ocarina.....		75
One oven, rotary, with building and bakery complete.....		1,525 43
Twenty-one gallons paint, assorted colors.....	1 00	21 00
One can paint, black, carriage.....		1 60
One can paint, green.....		1 20
Thirty-six pails, wooden.....	30	10 80
Two pails, iron.....	75	1 50
Two pails, milk.....	75	1 50
Twenty-four pans, oven, for bread.....	90	21 60
Twelve pans, baker's.....	40	4 80
Eight pans, dish.....	70	5 60
Six pans, fry.....	50	3 00
Twenty-one pans, milk.....	30	6 30
Ten pans, sauce.....	60	6 00
Thirty-six pans, tin, small.....	10	3 60
Five feet packing, rubber.....	50	2 50
Eight quires paper, legal cap.....	30	2 40
Eight quires paper, foolscap.....	25	2 00
Two and one half quires paper, wide bill.....	80	2 00
Two and one half quires paper, narrow bill.....	60	1 50
Six packages paper, cutting, for school work.....	22	1 32
Thirty-two sheets paper, glazed, for school work.....	02	64
Ten packages paper, toilet.....	07	70
Eighteen boxes paper, writing.....	15	2 70
Four pastry cutters.....	20	80
Thirty pounds peaches, dried.....	09	2 70
Six packages pearline.....	35	2 10
Ten pounds peas, split.....	05	50
Four dozen pens, steel.....		30
Eleven dozen penholders.....	05	55
Two pounds pepper, red.....	30	60
Five pounds pepper, black.....	35	1 75
One box pencil crayons.....		50
One half box pencils, slate.....		15
One pick.....		1 25
Sixty-eight pictures, framed..... average	30	20 40
One picture, panel.....		2 50
Two pianos.....		400 00
Two piano stools.....		4 00

INVENTORY AT SANTA CLARA—Continued.

ARTICLE.	Cost Price.	Market Value.
One piano cover		\$4 00
One hundred and seventy-six pillows		228 80
Four hundred and sixty pillow cases	average \$1 30	184 00
Two hundred pillow shams	40	40 00
Two packages pins, safety	20	10
Five packages pins, common	05	25
One hundred and twenty feet pipe	07	8 40
Two pair pipe cutters		5 00
Nineteen pitchers, water	1 00	19 00
Four pitchers, milk	60	2 40
Eight pitchers, syrup	50	4 00
Three pitchers, cream, glass	2 00	6 00
Two pitchers, chocolate		2 00
One pitcher, stone		1 00
Two hundred and fifty-three plates, breakfast	08 1/2	21 08
Two plates, bread	12 1/2	25
Thirty-six plates, china		5 76
Fifty-one plates, dinner	08 1/2	4 26
Twelve plates, hand		1 50
Eighty-three plates, pie	08 1/2	6 91
Twenty plates, soup	08 3/4	1 67
Eighteen plates, tin	05	90
Ten platters	20	2 00
Two planting bars	1 00	2 00
One plane, jack		1 00
Two planes, smoothing		2 00
One pair pliers, combination		2 00
One pair pliers, gas		1 25
One plow		14 50
Twelve poker, fire	15	1 80
Nine pot scrubs	03	27
Twelve sacks potatoes	1 30	15 60
Five pots for coffee	1 25	6 25
Fifty pots for flowers	05	2 50
Four pots for mustard	20	80
Three pots for pepper	20	60
One pot for sprinkling		60
Four pots for tea	1 00	4 00
Twenty-five pounds prunes, dried	07 1/2	1 88
Two pumps, steam pulsometer		350 00
One pump, brass, force		70 00
One pump, old, not in use		5 00
Four punches, for harness, etc.		2 00
One can petroleum, crude		70
Five racks for towels	40	2 00
Railing for piano		21 50
One half box raisins		1 05
Four rakes, garden		2 00
One rake, fire		1 50
One range, kitchen		163 00
One range, portable baker		2 50
One set repoussé tools		4 00
Four and one half yards ribbon		45
One box rings for school		50
Five pounds rice	05	25
Four robes, carriage	4 00	16 00
Two rolling pins	40	80
Two rubber stamps		1 75
Three dozen rubber bands	12	36
One set rubber type		1 25
Ten feet rubber sheeting	25	2 50
Sixteen bottles sauce, pepper	30	4 80
Two safes, iron		72 00
One safe, meat		8 00
Ten pounds sago	06	60
Ninety-seven salts	05	4 85
One sand table		5 00
Sixty packages sapolio	00	3 00
One hundred and thirty saucers	00	11 70
Twenty-three saucers, fruit	15	3 45

INVENTORY AT SANTA CLARA--Continued.

ARTICLE.	Cost Price.	Market Value.
Four saws, hand.....	\$1 50	\$6 00
One saw, crosscut, four feet.....		4 50
One saw, buck.....		1 50
Two saws, hack.....		75
One saw, framing.....		1 25
One saw, meat.....		1 00
One saw, scroll.....		3 50
Five saw horses, wood.....	40	2 00
Five saw files.....	10	50
One saw set.....		50
Eight sashes, window.....	1 00	8 00
One scales, platform.....		14 00
One scales, house.....		5 00
One scales, apothecary.....		8 00
One scraper, for oven.....		1 25
Four scoops.....	20	80
Eleven pair scissors.....	20	2 20
Five scrap books.....	50	2 50
Two pounds screws.....		50
Eight screens, fire.....	5 00	40 00
Eight screens, window.....	1 50	12 00
Two scythes.....		2 50
Two scythe snaths.....		60
One scythe stone.....		25
One seal, official.....		5 00
Four sewing machines.....		125 00
Sixteen sewing machine attachments.....		5 40
One hundred and nineteen yards shade, muslin.....	15	17 85
Twenty-eight shades, window.....	1 25	35 00
Two sieves.....	60	1 20
One pair shears, garden.....		1 50
One pair shears, garden, short.....		1 00
One sickle.....		75
Eighteen feet shaftings, ten pulleys, two collars, eight hangers.....		90 00
Twelve shelves, portable.....	30	3 60
One pair shears, office.....		75
One pair shears, tinner's snips.....		1 00
Three bunches shingles.....	50	1 50
Eight shovels.....	75	6 00
Six shovels, fire.....	20	1 20
Two shovels, oven.....		2 00
Four hundred and eighty-four sheets, linen.....	40	193 60
One hundred and eighteen sheets, rubber.....	1 50	177 00
Four sheets, ironing.....	30	1 20
Fifty-five skeins silk thread.....	05	2 75
Fifty-nine skeins silk, outlining.....	05	2 95
Two skeins silk, embroidery.....	05	10
Twenty-six and one half yards silesia.....	08 $\frac{1}{2}$	2 25
Seven sinks.....	7 50	52 50
Four skimmers.....	30	1 20
Fifty-nine slates.....	30	17 70
Two hundred and fifty pounds soap, laundry.....	04 $\frac{3}{4}$	11 25
Forty-one half cakes soap, house.....	02 $\frac{3}{4}$	1 02
Seventy-six cakes soap, toilet.....	03	2 28
Twenty-two pairs socks, boys'.....	20	4 40
Three hundred and twelve pounds soda, washing.....	01	3 12
Three bars solder.....	40	1 20
Two soldering irons.....		2 25
One soldering scraper.....		50
One hundred and seventy-three spoons, tea.....	25	43 25
Twenty-nine spoons, dessert.....	35	10 15
Seventy spoons, table.....	45	31 50
One spoon, cake.....		25
Six spoons, kitchen.....	12 $\frac{1}{2}$	75
Five spoons, butter.....	15	75
One spoon, medicine.....		25
Two spades.....		2 00
Four sponges.....		50
One hundred and fifty-two spreads for beds.....	1 00	152 00
Two sprinklers for lawn.....		2 00

INVENTORY AT SANTA CLARA—Continued.

ARTICLE.	Cost Price.	Market Value.
One sprinkler for laundry.....		\$3 00
Two spiders.....		1 00
One spoke shave.....	\$0 50	40
One half box split zephyr.....		40
Two squares, try.....		80
Two squares, twenty-four-inch.....		2 00
Four stands for flour.....		6 50
Three steamers, kitchen, agate.....		4 50
One steamer, kitchen, patent.....		6 50
Two steel carvers.....		50
One stereopticon and slides.....		50 00
Twenty stoves, with pipe..... aggregate		297 50
One stove, gasoline, cooking.....		7 50
One stove, laundry, ironing.....		30 00
Ninety-five stools.....	40	38 00
One stone, whet.....		50
Four strainers, tea.....		1 00
Twenty bales straw.....	62½	13 50
Fifteen pounds starch.....	07	1 05
One strainer, milk.....		60
Three splashes.....		1 25
Twelve bunches strings, corset.....		60
Two bunches strings, shoe.....		1 00
Fourteen strings, violin, E and D.....		2 10
Six pair suspenders.....	15	90
One hundred and forty-five pounds sugar, brown.....	08	11 60
Eighty-seven pounds sugar, granulated.....	09	7 83
Five pounds sugar, white.....	09½	48
Two sureingles.....	75	1 50
One sulphur sprayer.....		1 00
One sprayer, garden.....		2 00
One table, bakery.....		5 00
One table, bakery, side.....		3 50
Two tables, dining, extension.....	12 00	24 00
Seven tables, dining, children's.....		70 00
Three tables, dining, asylum.....		30 00
Three tables, dining, attendants'.....		15 00
Three tables, kitchen.....	4 00	12 00
Eight tables, kindergarten.....		8 00
Two tables, laundry, folding.....		6 00
One table, ironing.....		10 00
One table, sewing.....		20 00
Two tables, school.....		5 00
Twenty-six tables, toilet..... average	1 50	39 00
Eight table covers, colored.....	75	6 00
Seven tanks, water..... aggregate		425 00
Thirty-five pieces tape.....	05	1 75
One tape measure, 100 feet.....		1 50
Three boxes tapers, wax.....		75
Twelve pounds tea.....	27½	3 30
Eighteen thimbles.....	05	90
One package thread, Barbour's.....		75
Five dozen thread, white.....	45	2 25
Four dozen thread, black.....		1 80
Twenty dozen thread, Coates'.....		9 00
Eight tins, muffin.....		80
Two tie ropes, with snaps.....		1 00
Five tents and poles.....		60 00
Twelve tidies.....		3 00
Twelve tins for cake.....	05	60
Two toasters.....	40	80
Five tongs, pipe.....	3 50	17 50
One tongs, chain.....		6 50
One set toy money.....		25
Three toy animals.....		60
Four hundred and eighty-four towels, hand.....	07	33 88
Nine towels, roller.....	12	1 08
One trap, rat.....		60
One trap, mouse.....		25
Ten trays.....	75	7 50

INVENTORY AT SANTA CLARA—Continued.

ARTICLE.	Cost Price.	Market Value.
Five tray covers	\$0 40	\$2 00
One trowel		75
Two troughs, kneading		7 50
One triangle		1 00
One trombone, tenor		15 00
One trombone, alto		15 00
Two tubs, portable, wash		2 00
Three tubs, stationary, wash		36 00
One tuba		24 00
Two tureens, soup		6 50
Ninety-nine tumblers	08	7 92
Sixty spools twist	03	1 80
Two balls twine	25	50
One twine holder		30
One set tree climbers		3 50
One set trees, double		3 50
Thirty-seven yards toweling	09	3 33
Eighty-one ticks	50	40 50
One umbrella		1 50
Four pair underdrawers		2 00
Four pair undervests		3 00
Bell tenor trombone		22 50
Bell alto trombone		22 50
Twenty-two valves, globe	average 60	13 20
Sixteen valves, other	46	6 40
Sixteen vases	30	4 80
One half box vermicelli		50
Two vises		13 50
One vise, hand		2 00
One and one fourth barrels vinegar		12 50
Four violins	aggregate	75 00
Two violin boxes		3 00
One wagonette		500 00
One wagon, two seats and top		125 00
One wagon jack		5 00
One washer cutter		1 50
Two watering troughs		8 50
Two washboards		3 00
Thirty wands, school		6 00
Six wardrobes	aggregate	100 00
Ten washstands, wood	4 00	40 00
One washstand, iron		1 50
Four washbowls	60	2 40
Two whips		1 50
One wheelbarrow, iron		8 00
One wheelbarrow, wood		2 50
Two balls worsted	40	80
One wagon wrench		1 50
One wrench, alligator		1 50
Two wrenches, box		3 00
One wrench, Baxter		1 00
One wrench, monkey		1 75
Five cords wood	6 00	30 00
Twelve writing tablets		60
Thirty feet wire cloth	06	1 80
Three wagons for children		4 50
Twenty-four wine glasses		2 00
Amounting to		\$21,695 95

INVENTORY AT NEW SITE (GLEN ELLEN), JUNE 30, 1890.

ARTICLE.	Cost Price.	Market Value.
<i>Furniture.</i>		
Three bedroom suits, 7 pieces each		\$126 00
One bedstead, folding, mattress, and spring		90 00
Three bedsteads, double, wood	\$6 50	19 50
Twenty-four bedsteads, iron, single	7 00	168 00
Six bedsteads, iron, three-quarters	8 25	49 50
Six bureaus, oak and ash		90 00
One bath, porcelain lined		44 00
One bath, zinc		20 00
One bath, agate, foot		1 50
Twelve basins, white china		6 00
Three baskets, waste		2 25
Sixty-nine chairs, cherry	1 00	69 00
Thirty-six chairs, cane-seat	1 25	45 00
Twenty-four chairs, perforated	70	16 80
Twelve chairs, antique, dining-room	1 25	15 00
Six chairs, rockers, cane-seat	3 00	18 00
Six chairs, rockers, cherry	2 00	12 00
Twelve chairs, rockers, porch	aggregate	33 00
Six chairs, rocking, wood		12 00
One chair, reclining		12 00
Six chairs, revolving	3 50	21 00
Four chairs, step	1 50	6 00
One chair, child's high		3 50
Four chairs, reed	aggregate	46 50
One commode, large		11 50
One clock		6 00
Two clocks, alarm		4 50
Two carpet rugs, large	aggregate	84 38
One carpet rug, small		8 55
Three carpet rugs, small		3 00
One carpet, hall and stair, with rods		12 50
One carpet, blue Brussels, old		3 00
One carpet, brown Brussels, old		4 00
One carpet, mixed Brussels, old		8 00
Twenty-two mats from old carpets	40	8 80
Four desks, library		78 50
Two desks, office		49 00
Two fire-boards	1 50	3 00
One feather duster		82
Twelve fans, paper		3 00
One hat rack		4 00
Four ink receivers	50	2 00
One lounge		20 00
Six mirrors		6 00
Six mats, door		4 50
One mat, large		2 00
Two mats, Japanese		2 00
One hundred and seventy-four yards matting, new		45 50
Eighty-two yards matting, old		17 00
Twenty-two yards matting, cocoa, old		1 75
Twelve match safes, luminous		75
Four match safes, china		50
One mosquito netting		150 00
One parlor suit, 7 pieces, with covers of linen		1 00
Two parlor brushes		3 00
Six racks		1 50
One rack		25 00
One settee of natural reed		2 25
Three shoe boxes, with creton covers		70
Two shoe bags		18 00
One sideboard		7 60
Twelve screens for windows		10 00
One table, marble top, mahogany		15 00
One table, natural reed		35 00
One table, square, extension		9 00
One table, oak		7 50
One table, oak		5 50
One table, oak		7 00

INVENTORY AT GLEN ELLEN—Continued.

ARTICLE.	Cost Price.	Market Value.
Three tables, oak.....	\$6 25	\$18 75
Six tables, square.....	3 00	18 00
Three tables, dining-room, extension.....	7 20	21 60
Two tables, drop leaf.....	3 50	7 00
Three tables, redwood, side.....	4 50	13 50
Seven toilet sets, china.....	aggregate	27 25
Six toilet sets, tin.....		12 75
Two vases, blue.....		2 00
Two vases, white glass.....		1 50
Two vases, stone.....		1 50
Two vases, blue.....		50
Eight vases, assorted.....		2 00
One wardrobe, mahogany.....		15 00
One wardrobe, walnut.....		12 00
One wardrobe, cottage.....		8 00
Three washstands, cherry.....	7 00	21 00
Seven washstands, oak and ash; one at \$7 50, six at \$5.....		37 50
Two washstands, stationary.....	12 00	24 00
<i>Furnishings.</i>		
Twenty-two pair blankets, white.....	7 25	159 50
Forty-two pair blankets, colored.....	4 25	178 50
Seven bolsters.....	3 00	21 00
Seven bolster cases, ticked.....	50	3 50
Six cheviot aprons.....	40	2 40
Twenty-eight fancy splashes, doilies, mats, etc.....	50	14 00
Seven mattresses, hair, double.....	12 30	86 10
Six mattresses, three quarters.....	7 75	46 50
Twenty-four mattresses, single.....	4 00	98 40
Seven mattresses, excelsior, double.....	2 50	17 50
Six mattresses, excelsior, three quarters.....	1 75	10 50
Twenty-four mattresses, excelsior, single.....	1 50	36 00
Six mattresses, spring, wire.....	5 00	30 00
Twelve napkins, officers'.....	10	1 20
Thirty-six napkins.....	09	3 24
Six napkins, white, fringed.....	09	54
Three napkins, red.....		27
Seven pair pillows, first class.....	5 00	35 00
Twenty-four pair pillows, second class.....	1 80	43 20
Twelve pillows, nursery.....	90	10 80
Forty-four pillow cases, unbleached.....	35	15 40
Thirty-six pillow cases, bleached.....	40	14 40
One pillow sham, fancy.....		1 50
Thirty-two sheets, double, bleached.....	60	19 20
Thirty-two sheets, single, unbleached.....	40	12 80
Four spreads, bed, first class.....		18 00
Twelve spreads, Bates, second class.....	1 00	12 00
Twenty-four spreads, colored.....		21 00
Two scarfs for sideboard.....	40	80
Three stand covers, chenille.....		3 00
One hundred and eight towels, fringed.....	15	16 20
One hundred and eight towels, plain, white.....	15	16 20
Forty-four towels, dish.....	10	4 40
Twelve towels, roller.....	12	1 44
Twelve towels, Turkish.....		3 00
Six towels, aprons.....	35	2 10
Thirteen tablecloths.....	2 00	26 00
One tablecloth, red damask.....		3 50
Three tablecloths, small red.....		1 00
Six yards felt cloth.....		7 50
One tidy, fancy.....		1 00
<i>Crockery, Glass, etc.</i>		
Three berry dishes, glass.....		3 75
Eleven butter dishes, glass.....		30
Twelve bowls, white.....		1 75
One bowl, sugar.....		1 00
One bowl, jelly.....		60
One bowl, glass, amber.....		60
One bowl, gravy set.....		1 60

INVENTORY AT GLEN ELLEN—Continued.

ARTICLE.	Cost Price.	Market Value.
One bowl, silver tipped, sugar		\$1 00
Forty-four cups and saucers	\$0 16	7 04
Thirty-six cream dishes, glass		2 25
Twelve catsup bottles, glass		72
Two cruets, glass		50
Two cream pitchers, glass		70
Twelve chambers		6 00
Two decanters, glass		2 00
Twenty-four dessert dishes		1 00
Twenty-four dessert dishes, white china		1 60
Three jars, three gallons each, and covers		1 80
One jug (Bramble), hot water		75
One jug, cut-glass, water		1 00
Three hundred and sixty jars, glass, fruit (Mason's)	12	43 20
One measure for liquids, glass		30
One mug, syrup		40
Twenty-four mugs, white stone		2 50
Two mustard pots		50
Six molds for jelly, glass		3 00
Six pitchers, white, one gallon		1 70
Two pitchers, white, milk		75
Two pitchers, majolica, water		2 00
One pitcher, china, milk		50
Two pitchers, glass, cream		1 55
Twenty-four plates, soup		1 70
Twenty-four plates, dinner, white and blue		4 95
Twenty-four plates		1 50
Forty-eight plates, small, fancy		4 65
Twenty-four plates, pie, white		90
Ten plates, square		3 20
Four plates, hand-painted, china		3 00
One plate, pudding		3 00
Two plates, bread, fancy		1 50
Two plates, cake		50
Two plates, child's		20
Two plates, large, meat		2 50
One plate, large, fish		2 50
Two plates, meat, medium		1 00
Four peppers, fancy		2 00
One potato masher, glass		40
One spoon holder, glass		60
Twelve saucers, fancy, brown		96
Two stands of stone for coffee and teapot		50
One sugar glass		55
Four salts, fancy		1 00
One salt, large		25
One soup tureen and ladle		4 25
Eighteen tumblers, cut-glass		1 88
Twelve dozen tumblers, common	07	8 40
Three dozen tumblers	10	3 00
Three vegetable dishes and covers		3 95
Seven vegetable dishes, white		3 75
Two vinegar cruets		40
<i>Kitchen, House, and Dairy Ware.</i>		
One boiler for oatmeal		3 25
One boiler, wash		2 50
One boiler, meat, iron		75
Twelve basins, agate	50	6 00
One call-bell, nickel		1 00
One call-bell, common		1 00
One nest cake cutters		2 50
Six cake cutters, fancy		37
Two cake cutters, pastry		20
Two molds, muffins		1 00
One coffee mill		2 00
Six coffee cans	25	1 50
Two can openers		30
Two cake turners (shovels)		75
Twelve can fasteners		1 00

INVENTORY AT GLEN ELLEN—Continued.

ARTICLE.	Cost Price.	Market Value.
Two corkscrews.....		\$0 50
Two colanders.....		1 00
Two cream cans, large.....	\$7 00	14 00
Four dredge boxes.....		50
Five dippers, tin, assorted.....		85
Three dust pans.....		60
Two dish pans, large.....	6 00	12 00
Four funnels.....		1 08
One griddle.....		1 00
Two graters, nutmeg.....		30
One grater, nutmeg, revolving.....		30
One ice cream freezer.....		2 50
One kettle, tin, tea.....		50
One kettle, ten-gallon, brass.....		8 00
One kettle, brass, tea.....		2 25
One kettle, granite.....		3 00
Two dozen knives, rubber handles.....		5 00
Two dozen knives, wood handles, and forks.....		2 50
One dozen knives, metal handles.....		1 75
Two pair knives, carving, and forks.....		5 00
Three knives, butcher.....		1 25
Two knives, carving.....		60
Two knives, butter.....		1 00
One knife, chopping.....		60
Five knives, paring.....		1 00
Two dozen plated forks.....		8 00
Three large flesh forks.....		1 50
Four lids, granite.....		1 05
One lifter, pie.....		25
Two lemon squeezers.....		75
One case larder needles.....		1 00
One measure, gallon.....		50
One meat saw.....		75
One mill, patent, coffee.....		2 00
Twelve match safes, tin.....		72
Six match safes, iron.....		30
Two milk cans, Swiss.....	1 00	2 00
Forty-eight milk pans.....		48 00
Two measures, agate.....		1 50
Two pepper boxes, large.....		40
One potato masher.....		45
One potato cutter, patent.....		5 00
Three pans, for baking.....		1 20
One pan, for coffee roasting.....		50
Two pans, copper bottoms.....		6 00
Seven pans, square, iron.....		3 50
Eight pans, tin, for jelly cake.....		70
Twelve pans, tin, for pie.....		50
One pan, tin, for dishes.....		30
One pan, copper bottom, stew.....		75
Four pans, agate.....		8 75
Three pans, galvanized.....		2 15
Two pans, large cooking.....		12 00
Two preserving kettles, porcelain lined.....		6 00
One pick, ice.....		50
One pitter, cherry.....		75
One parer, apple.....		75
Two pots, agate, tea.....		2 00
Two pots, agate, coffee.....		3 37
One pot, stone, tea.....		50
One range, kitchen.....		70 00
One spring scales.....		1 00
Three slop buckets, tin.....		1 20
Two strainers, milk.....		80
Three sadirons.....		2 50
One sugar scoop.....		25
Two skillets, iron.....		1 25
Two skillets, sheet-iron.....		1 00
One steam mold.....		50
Twelve skewers, for meat.....		20

INVENTORY AT GLEN ELLEN—Continued.

ARTICLE.	Cost Price.	Market Value.
Three skimmers		\$0 70
Twelve skimmers, milk		50
Two sieves		60
One steamer, tin		1 50
One stew kettle		60
One sadiron heater		18 00
Twenty-four spoons, plated, table		8 00
Twenty-four spoons, plated, tea		4 00
Twenty-four spoons, common, tea		80
Twenty-four spoons, common, table		1 50
Two spoons, sugar, plated		1 00
Six spoons, iron		60
One tea strainer, large		30
Twelve tin cups		72
One wrench, small		30
One wire meat safe		4 00
One water-cooler		8 50
One wringer, clothes		8 50
One washer, hand		9 00
Two egg beaters		50
<i>Woodenware, Baskets, etc.</i>		
Five nests baskets		1 75
Three baskets, clothes		2 75
One basket, hamper		4 00
One basket, waste		75
Twelve buckets, wooden	\$0 35	4 20
Two buckets, paper	35	70
Two buckets, galvanized iron		1 00
Fifteen brooms, corn	40	6 00
Seven brooms, whisk	35	2 45
Three brooms, stable	1 00	3 00
Five brushes, paint		1 65
Four brushes, whitewash		3 25
One brush, hemp		50
Six brushes, scrubbing	25	1 50
Six brushes, shoe		1 50
One brush, patent combination, and handle		1 25
One brush, crumb, and tray		75
One brush, long, wall		1 25
One butter mold		25
One butter paddle		15
Two butter paddles		25
One bench at depot		4 00
One bowl, oval, wooden		60
One bowl, square, wooden		70
One carriage step		2 00
One clothesline		50
Two fly traps		60
One flower stand		3 00
One ice chest		10 00
Two ironing boards		1 50
One knife and fork, salad, wood		50
Eighty feet of ladders	25	20 00
Two meat boards		1 00
One mold, rice		1 25
Ten mops, cotton		3 00
Six mop handles		1 20
Two mops, patent self-wringers		1 50
One mold, square		1 00
Three pails		1 50
Two pails, milk		1 20
Two pails, milk, with strainers		2 00
One potato masher, wood		30
Two pastry boards		1 00
One rollingpin		25
Four trays		2 00
One table, dairy		4 00
Two washboards		1 00
Two tubs		2 00

INVENTORY AT GLEN ELLEN—Continued.

ARTICLE.	Cost Price.	Market Value.
<i>Tools and Implements.</i>		
One auger		\$0 70
Four axes	\$1 25	5 00
One bench screw		1 60
One bench dog		75
Eighteen bolts and nuts		30
One brace and thirteen bits		4 80
Two bamboo extensions		12 00
Two bellows, sulphur		1 60
Two chains, log		2 50
One corn planter		2 25
One currycomb and brush		75
One crowbar		95
One cultivator		25 60
Five chisels		1 50
Five chisels, cold		1 25
One compass		35
One cultivator, old		4 00
One drawknife		60
Sixteen drills	20	3 20
Two dusters, sulphur		1 75
Six forks, hay		3 30
One funnel, large		1 00
One glue kettle		50
Two gauges		50
One grindstone and stand		1 50
Two gouges		1 60
One glass cutter		3 50
Seven hammers	1 25	8 75
Two hammers, tack		50
One hand-ax		90
Two hatchets	75	1 50
One hatchet, round head		50
Fifteen hasps, brass	65	9 75
One hay buck		10 25
Seven hose, garden	60	4 20
One hundred and ten feet hose, rubber	15	16 50
One iron mall		1 50
Three iron clamps		4 50
Two iron stamps		2 00
Two levels		3 20
One line, chalk		10
One mallet		1 25
Seven mattocks	1 25	8 75
Three monkey wrenches		1 50
One nail extractor		2 50
One oiler		30
One oil stone		30
One pump, spray		26 00
Two pruning knives		2 00
One pitchfork		1 00
Eighteen padlocks, Yale	1 25	22 50
Three picks		3 00
Two planes, jack		1 75
Two planes, smoothing		2 10
Two pipe wrenches		5 60
One punch, spring		30
Three punches		1 35
One rivet set		25
One rivet cutter		1 60
Four rasps		70
Two rules		50
Three reducers, brass	50	1 50
Eighty feet rope	04	3 20
Two rakes, iron	45	90
One rake, wood		50
Six saws	aggregate	9 80
One saw, keyhole		30
One sawset		70
Seven sawfiles		70

INVENTORY AT GLEN ELLEN—Continued.

ARTICLE.	Cost Price.	Market Value.
Four screwdrivers.....		\$1 50
One spokeshave.....		60
Three squares.....		1 50
Two pair shears, pruning.....		5 25
One pair shears, hedge.....		1 75
One pair shears, sheep.....		1 00
One scraper, dirt.....		1 00
Two scythes.....	\$0 55	1 10
Two scythe snaths.....		1 00
Six scythe stones.....		1 10
One scraper, dirt.....		1 00
Two sprinkling pots.....		1 25
One ship scraper.....		1 25
Nine shovels, long handled.....	1 00	9 00
Five spades, long handled.....	1 00	5 00
Three sprinklers, lawn.....	3 00	9 00
Two spray nozzles and forty feet hose.....		9 20
One sieve, hair, for jelly.....		1 25
Two steel traps.....		1 40
Six traps, gopher.....		1 15
Two vises, iron.....		15 25
Seven vine hooks.....		7 25
Thirteen vine hoes.....		10 25
One watering pot.....		1 50
Three watering troughs.....		12 00
Two wheelbarrows.....	7 50	15 00

Miscellaneous.

Eight barrels, water.....	75	6 00
One boiler, stove.....		10 00
One bell, institution.....		19 00
One bell, cow.....		35
One book on fruit.....		3 00
One churn.....		1 50
Sixty-three fowls.....		32 25
Eight fowls, Guinea.....		1 35
Two horses, work.....		150 00
One horse, saddle.....		50 00
Two sets harness, double.....	20 00 90 00	110 00
Two halters.....		3 00
One hive.....		4 00
Three lamps, hanging—hall, parlor, and dining-room.....		19 50
Two lamps, hanging, brass.....		9 00
Six lamps, glass, small.....		1 80
Two lamps, Rochester.....		9 25
Two lanterns, blue.....		2 00
One lantern, barn.....		1 25
One mail bag.....		5 50
Eight pigs.....	6 00	48 00
Four sows.....	10 00	40 00
One stove, oil.....		12 00
One stove and pipe.....		9 50
One stove, parlor.....		5 50
One stencil plate and set.....		4 00
Two saddles and bridles.....		46 00
One sewing machine.....		29 00
Twelve tin candlesticks.....		75
One wagon, Bain, farm.....		50 00
Extra bed for gravel.....		10 00
One wagon, three seat, spring.....		70 00
One wagon, Studebaker, farm.....		125 00
One whip.....		1 50
Wire trellis.....		14 27

Supplies.

Forty jars apricots.....	20	8 00
Seventy-five jars cherries.....	20	15 00
Sixty jars peaches.....	20	12 00
Twenty-five jars pears.....	20	5 00

INVENTORY AT GLEN ELLEN—Continued.

ARTICLE.	Cost Price.	Market Value.
One hundred jars nectarines, plums, etc.		\$20 00
One hundred and thirty-two glasses jelly.....	\$0 10	13 20
Ten pounds dried figs.....	07	70
Twenty-five pounds dried plums.....	08	2 00
Three hundred and twenty pounds dried apples.....	06	19 20
Two hundred and eighty pounds nails, assorted sizes.....	05	14 00
One hundred pounds nails, wire.....	05	5 00
One quart castor oil.....		40
One gallon olive oil, crude.....		1 00
Fourteen feet iron pipe.....	06	84
Twelve pipe fittings.....	30	3 60
Twenty-eight pieces sewer pipe, forty-five feet.....	20	9 00
Two pair window sash.....	4 00	8 00
Four pounds solder.....		60
Thirteen sheets tin.....		65
Twenty-four fruit boxes.....	10	2 40
One hundred and sixty pounds tobacco stems.....		3 20
Five pounds arsenic.....		40
Three and one half pounds London purple.....	25	88
Seventy-five pounds Paris green.....	18	13 50
Thirty-eight pounds soap.....	05	1 90
Twenty-five pounds sulphur.....	03½	88
Fifteen pounds horse hair.....		45
One hundred pounds soda.....	04½	4 50
Twenty pounds bluestone.....	07	1 40
Five pounds beeswax.....		1 75
Fifteen pounds rope.....	35	5 25
Forty yards burlap.....	05	2 00
One hundred and forty pounds potash.....	06½	9 10
One gallon turpentine.....		1 00
One half pound vermilion.....		50
Twelve sheets emery paper.....		25
One box rivets.....		20
Five pounds glue.....		40
Thirty pounds iron rods.....		45
Drugs and medicines, estimated.....		34 00
Seventy-eight tons of hay.....	10 00	780 00
<i>Curtains, etc.</i>		
Ten calico curtains.....	35	3 50
One muslin curtain.....		90
Fifteen pair long white scrim curtains.....	80	12 00
Nineteen scrim sash curtains.....	45	8 55
One pair long creton curtains.....		2 40
Three pair short creton curtains.....		3 00
Aggregate.....		\$5,789 48
<i>Live Stock.*</i>		
One bull.....		
Thirteen calves.....		
Twenty heifer calves.....		
Thirty-three cows.....		
Twenty-three heifers, three and four years.....		
Eight heifers, two years.....		
Seven heifers, yearlings.....		
Thirty-two steers, three years and upwards.....		
Fourteen steers, two years and upwards.....		
Eight steers, yearlings.....		
Aggregate.....		\$1,750 00

*This schedule comprises the stock purchased by the Board of Trustees with funds in their hands other than State Funds, and should not, therefore, be made as an offset against any expenditure on account of maintenance at Gelston until the Board has been reimbursed by the State for the purchase of said stock.

EXTRACT FROM THE REPORT OF THE FINANCE AND
AUDITING COMMITTEE.

STATE OF ACCOUNTS, ETC., FOR FISCAL YEAR ENDING JUNE 30, 1890.

CALIFORNIA HOME FOR THE CARE AND TRAINING OF FEEBLE-
MINDED CHILDREN, September 23, 1890. }*Mrs. KATHERINE B. LATHROP, President, and the Board of Trustees of said Institution:*

The undersigned Finance and Auditing Committee of said Board of Trustees, agreeably to and in compliance with the requirements governing the duties devolved upon us to perform, respectfully report that on the twenty-third day of September, 1890, they proceeded to the "Home" at Santa Clara and thoroughly and carefully investigated into the books, accounts, and vouchers of the Superintendent and Secretary of said institution; and, also, the accounts of the Treasurer, as submitted to us up to the first day of July, 1890, and find the same in all respects accurate and correct, and the books well and properly conducted and kept.

We examined all details of receipts and expenditures received and paid out by said institution through its officials, and carefully examined each and all vouchers or receipts for each and all expenditures, and find the same correct. From the account rendered to us by the Treasurer, and filed with the Superintendent and Secretary of the institution, we find the same agree as to the details of receipts and expenditures with the book of our Secretary and Superintendent, and balance agreeably with each other to July 1, 1890.

We have looked over the inventory of assets and find each and every article therein enumerated as set down at their cost price, which is the only and correct way of preparing and submitting such property. It follows that considerable discount would have to be made on the prices named to realize the proper prices on the same by reason of the wear and tear on same.

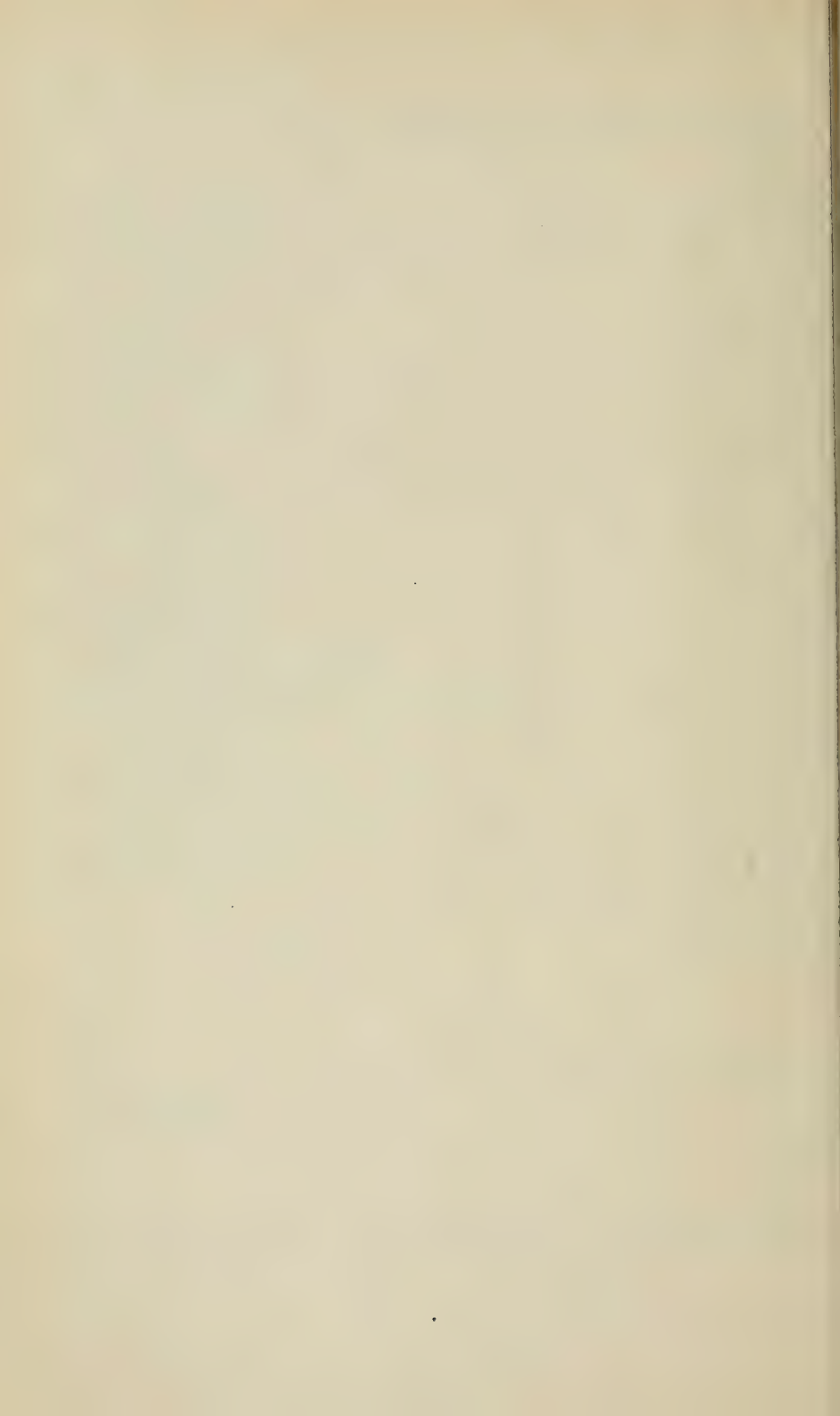
All of which is respectfully submitted.

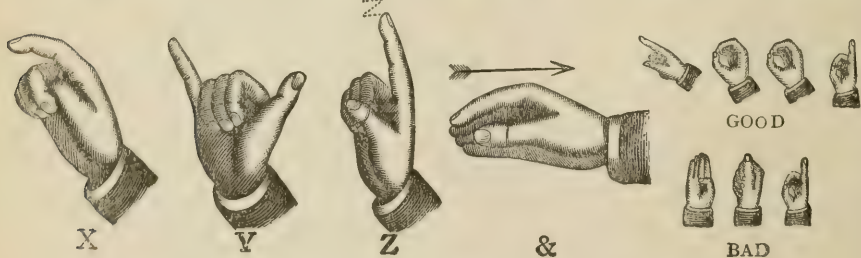
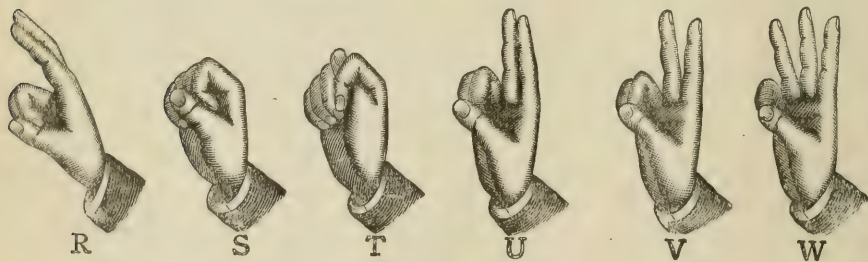
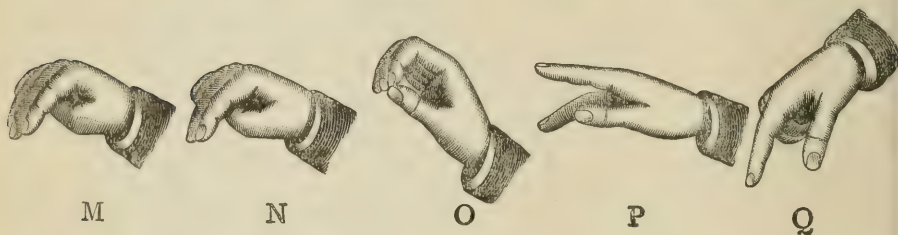
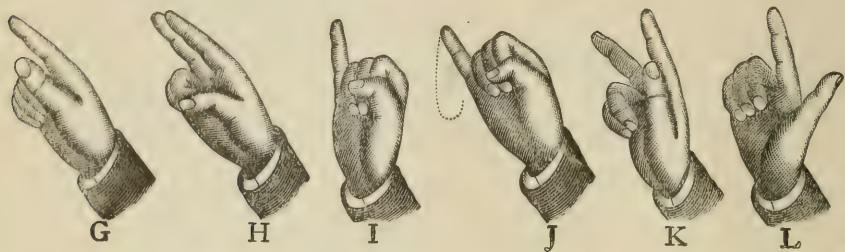
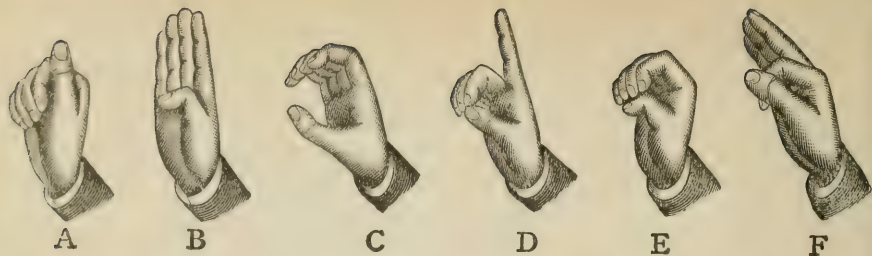
(Signed:)

WILLIAM HARNEY,
GEO. W. GIBBS,
Finance and Auditing Committee.

All of which is respectfully submitted.

A. E. OSBORNE,
Secretary and Superintendent.





NINETEENTH REPORT •

OF THE

BOARD OF DIRECTORS AND OFFICERS

OF THE

California Institution for the Education

OF THE

DEAF AND DUMB, AND THE BLIND,

FOR THE

TWENTY-FOUR MONTHS ENDING JUNE 30, 1890.



SACRAMENTO:

STATE OFFICE, : : : : : J. D. YOUNG, SUPT. STATE PRINTING.

1890.

BOARD OF DIRECTORS.

W. C. BARTLETT, President.....	Oakland.
J. K. McLEAN, Vice-President.....	Oakland.
JOHN W. COLEMAN.....	Oakland.
GEORGE C. PERKINS.....	Oakland.
WARREN OLNEY.....	Oakland.
W. L. PRATHER.....	Secretary and Treasurer.

OFFICERS OF THE INSTITUTION.

PRINCIPAL.

WARRING WILKINSON.

TEACHERS OF THE DEAF AND DUMB.

GEORGE B. GOODALL, M.A.,	FRANK O'DONNELL,
C. S. PERRY, M.A.,	THEOPHILUS D'ESTRELLA,
THEODORE GRADY, B.L.,	HENRY FRANK,
Miss M. A. DUTCH,	Miss LAURA NOURSE.

TEACHERS OF ARTICULATION.

N. F. WHIPPLE,	Miss L. MOFFAT.
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TEACHER OF DRAWING.

THEOPHILUS D'ESTRELLA.

TEACHERS OF THE BLIND.

CHAS. T. WILKINSON,	Miss ROSE SEDGWICK.
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TEACHER OF MUSIC.

GEORGE B. GOODALL.

I. E. NICHOLSON.....	Physician.
DOUGLAS KEITH.....	Clerk.
L. W. FLENNIKEN.....	Supervisor.

MATRONS.

Miss M. J. WISEMAN,	Miss J. OSGOOD,
Mrs. A. F. MUNROE,	Miss M. E. SHARR.

C. JENSEN.....	Foreman Carpenter Shop.
E. R. CARROLL.....	Foreman Printing Shop.
FRED. HANSEN.....	} Engineers.
JOHN TREVETHAN.....	

REPORT.

OFFICE OF THE CALIFORNIA INSTITUTION FOR THE
EDUCATION OF THE DEAF AND DUMB, AND THE BLIND, }
BERKELEY, November 1, 1890.

To his Excellency R. W. WATERMAN, Governor:

SIR: The Directors of the Institution for the Deaf and Dumb, and the Blind, make the following report concerning the trust which has been committed to them. The period covered by this report is two years, ending June 30, 1890.

The total number of pupils under instruction during the period mentioned has been two hundred and nine. The total number of pupils at the close of the present fiscal year was one hundred and sixty-eight, and at date of report one hundred and eighty-one pupils were enrolled. During the two years covered by this report forty-one pupils have been graduated from the Institution.

The total receipts from State appropriations for the two years ending June 30, 1890, were	\$94,855 12
From Principal	2,383 83
Interest on balances	61 80
From balance June 30, 1888	4,634 41
Total receipts	<u>\$101,935 16</u>
Total disbursements	<u>\$99,755 99</u>

For a detailed statement of expenditures for the maintenance of the Institution, reference is made to the report of the Principal herewith submitted, and also to the same for a particular statement of the appropriations needed for the efficient conduct of the Institution for the next two years.

During the last two years the main edifice, known as the Educational Building, has been carried up another story and completed according to the original plan. The completed structure adds a sufficient number of class-rooms together with a convenient assembly-room for all the needs of the Institution for many years to come. The perfection of detail, the symmetry and solidity, and economy of construction have given great satisfaction to the Directors. During the same period another structure, to be known as the Girls' Home, has been completed. It is a plain, solid edifice, admirably adapted to the present needs of the Institution. Both of these buildings have been carried to completion by an expenditure within the appropriations made by the State.

The wisdom of separate structures having plain exteriors, with the utmost security against fire, so harmoniously grouped that the whole, for educational purposes, is a unit, is now beyond question. Here are two institutions requiring totally different methods of instruction, the whole under one supervision, where the success of the union has been carried to the most satisfactory results.

The question of an adequate water supply has been one of the most

difficult with which the Directors have had to deal. Two years ago an appropriation of \$10,000 was asked, and granted by the Legislature. This sum, it was hoped, would be ample for the increase of the necessary water facilities. At least ten thousand gallons a day, beyond the present available amount, ought to be provided. Soon after the appropriation was made available, it was found that the cost of sinking an artesian well one thousand feet would be not less than \$13,000, this being the lowest tender made. The Directors therefore resolved to try for water by means of a tunnel into the hill in the rear of the Institution, near where two small tunnels were affording a moderate supply of water. The new tunnel was driven nine hundred and seventy-four feet, at a cost of about \$3,000, when, not finding any water, the work was suspended. There is good reason to believe that an adequate supply of water can be obtained from an artesian well driven to a depth of from one thousand to one thousand five hundred feet; for this purpose the Directors ask for an additional appropriation of \$10,000.

It gives the Directors pleasure to state that, beside the substantial improvements made during the last two years, the buildings and grounds have been kept in perfect order, and that the internal management of the Institution has been efficient and altogether satisfactory.

Respectfully submitted.

WM. C. BARTLETT,
President.

REPORT OF THE PRINCIPAL.

To the Board of Directors of the California Institution for the Deaf and Dumb, and the Blind:

GENTLEMEN: I have the honor herewith to submit the biennial report and papers, which give in detail the history and operations of this school during the two years ending June 30, 1890:

NUMBER OF PUPILS.

The movement of pupils has been as follows:
On the rolls June 30, 1888:

DEAF AND DUMB.		
Boys	-----	77
Girls	-----	46
		123
BLIND.		
Boys	-----	15
Girls	-----	15
		30
Total both classes	-----	153

The admissions since the same date have been as follows:

DEAF AND DUMB.		
Boys	-----	28
Girls	-----	16
		44
BLIND.		
Boys	-----	11
Girls	-----	1
		12
Total admissions	-----	56
Total under instruction	-----	209

There have been graduated and discharged during the two years:

DEAF AND DUMB.		
Boys	-----	20
Girls	-----	11
		31
BLIND.		
Boys	-----	6
Girls	-----	4
		10
Total deductions	-----	41
On rolls June 30, 1890	-----	168
Admitted since opening of school	-----	18
Discharged since opening of term	-----	5
On rolls at date of report	-----	181

HEALTH.

It is gratifying to report that the two years have gone by with no death among either pupils or employés. One little boy, who had always been subject to rheumatism, went home, and some months afterwards died of heart disease. The health of the pupils has also continued good. A few cases of scarlet fever, and many cases of the prevailing "grippe," which was epidemic during the past winter, comprise all that is worth recording, and from these ailments the children who were attacked recovered without any evil consequences.

It is not often in the life of a school of this sort that two years elapse without the corps of teachers being modified either by death, resignation, or health failure; but it is my good fortune to be able to say that the officers of the Institution and heads of departments have not been changed in any respect since the date of the last report, except to add the name of John Trevethan as engineer. The employment of this additional help in that department became necessary when cooking by steam and the electric light plant were introduced.

THE SCHOOLS.

The work of the class-room during the past two years has been satisfactory, and shows good results in the intellectual progress of the pupils, and, in what is of higher significance, the development of character. No new methods have been introduced, because new methods in the instruction of the deaf are not likely to be found.

There are new applications and ingenious devices for increasing the efficiency of the means already used, and the results obtained show a vast improvement over the outcome of the schools fifty or a hundred years ago; but since De L'Epee adopted the sign language, and Heinecke adopted articulate speech, as the instrument of instruction, the work has been pushed along those two lines of endeavor.

There will probably always be honest differences of opinion as to the merit of what has come to be known as the French and the German systems. There is a popular belief that lip-reading and articulation are great helps in aiding a deaf person in obtaining employment, and that he is to be restored to society and its multitudinous voices by the same means. Whether this belief is well founded cuts no figure in the case. I think, however, it has had an important influence in bringing about the great revival which the German system has undergone during the last thirty years in this and other countries. Whenever and wherever the use of a man is considered more important than the man himself, then and there that system of training will prevail which is supposed to increase his commercial value. Whenever and wherever a man is considered superior to any use he may be put to, then and there education will be based on broader grounds and tend to develop manhood and character rather than handicraft and mechanics. The former theory has prevailed on the continent, and it cannot be denied that something of the same spirit is abroad in our own country. Fault has been found with our public system because the teaching is not practical enough. There is much to be said on both sides of the question, but this is not the place for its discussion, and I allude to it merely to indicate what I believe to be one of the causes that has brought about the extraordinary

interest for the last quarter of a century in the German system which, so far from being new, is as old as deaf mute instruction.

IMPROVEMENTS.

During the period covered by this report there have been more improvements made in the physical development and equipment of the Institution than within any two years of its existence.

First and foremost in the order of importance is the completion of the Educational Building, according to the plan made out many years ago. The whole structure has been carried up another story, and with the tower one hundred and sixty feet high now presents a plain but dignified appearance. The additional floor is divided into school-rooms, art-rooms, and the fine assembly hall, which is one hundred and twelve feet long by fifty-two feet wide. This room is the special pride of the Institution. Its beautiful proportions and graceful architecture excite the admiration of all visitors. It has been furnished with six hundred and sixteen opera chairs with folding seats, and carefully arranged to give easy and unobstructed view of the stage platform. Under the gallery is a space thirty by forty feet, to be devoted to library purposes, and with the room now in use will afford shelving for five thousand books. The cases will be built this year by the boys of the cabinet shop, and from plans already prepared by Messrs. Wright & Sanders. The north end of the building is devoted to the art department. Two rooms of ample dimensions, thirty-six feet by twenty feet, and thirty feet by twenty feet, connected by sliding doors, and with broad skylights, offer excellent facilities in a line of work that is every year becoming of larger importance. Solid shutters to the windows, instead of the ordinary slat blinds, and roller curtains under the skylights, enable the teacher to manage the light as best pleases him. The easels, stands, drawing boards, cases for materials, etc., are all of home manufacture, and have thus been obtained with little expense to the Institution. The south end of the building is devoted to class-rooms, and the old assembly hall on the first floor has been divided and put to the same use.

At present writing the new Home for the girls is not finished, although it is expected to be in occupation before the Legislature meets. The house is built in the same plain, substantial manner as the other Homes, though somewhat improved in its architectural effect by putting the fire-escape in the form of a round tower on the corner, and a square, granite-capped bay in front. The fireproof features of construction have been kept in view, and the general arrangements for the comfortable home-life of the pupils have been carefully studied.

An appropriation of \$2,000 was made by the last Legislature for a new boiler and apparatus for steam cooking. This sum has been expended with most satisfactory results. A forty-one horse-power water-tube boiler has been purchased and put in place with a Llewellyn heater for purifying the water and returning it at almost boiling point to the boiler. The devices for heating water for the laundry and kitchen use have been reconstructed, and dependence on the range for this supply has been done away with. Two soup kettles, a mush boiler, two vegetable steamers, and coffee and tea boilers have been placed in the kitchen, and all connected with the engine house where steam is generated for all uses. The condensed steam is saved and run into one of

the large cisterns, whence the water is pumped back to the reservoir on the hill. The preparation of food for the table by the apparatus introduced has not only been much facilitated, but the quality of it has been greatly improved.

It was with some hesitation that I asked the last Legislature for \$1,000 with which to test the experiment of electric lighting. A forty-light plant was intended, enough for three sitting-rooms and the dining hall. The Board resolved to install a seventy-five-light plant, with additional lamps to the number of one hundred and twenty. This machinery has been running since the first of the year, and with such regularity and satisfaction as to put the matter beyond the domain of experiment.

The electric light has come to stay. Its convenience, steadiness, comparative lack of heat, and safety, make it a necessary part of the equipment of a school like this. There are only two questions to be considered on the other side, namely: economy, and the danger of being suddenly left in darkness by the failure of the machinery at any time. The latter objection is now overcome by introducing the storage batteries, which seem to do all that is claimed for them. I have made some careful experiments to test the cost of the light, and am led to believe that it is cheaper than gas, even as we make it. The engineer weighed out four hundred pounds of Wellington screenings that cost \$7 45 per ton of two thousand two hundred and forty pounds, or \$1 33 for four hundred pounds. With this he ran seventy lights of sixteen candle-power for four hours and twenty minutes, or a cost for coal of .4 of a cent an hour for each light. This is almost as cheap as coal oil. Of course there is to be added the wear and tear of machinery, the breakage of lamps, and the cost of attendance; but, with a larger plant these items proportionately decrease, and I am satisfied that it would be a measure of economy to install a plant of sufficient capacity to light the whole Institution, and thus do away with the use of gas.

In order to place before the Legislature a definite idea of the cost of this improvement, I have asked for and received a proposal from the United Edison Electric Light Company for a complete system, including engine, wiring, sockets, cut-outs, lamps, dynamos, etc., for all the buildings of the Institution, and delivered in perfect order. Their bid is as follows:

For Ball automatic engine and steam piping.....	\$950
For two 135-light dynamos, wiring, lamps, etc.....	1,997
Total	\$2,952

The company also agree for \$2,106 additional, to place in position with all proper connections, a system of storage batteries of sufficient power to run sixty lights each of sixteen candle-power, for ten hours. There are several advantages claimed for the storage battery, and apparently on good grounds. Its use enables the engineer to lay up during the day a supply of electricity for night use at a great saving in attendance and of fuel. It offers a safeguard against the danger of being left in darkness by a sudden or momentary disarrangement of the machinery. It makes possible the running of certain lights which, in an establishment like this, must be kept burning all night. It is also said to improve the steadiness of the whole system. I strongly recommend an appropriation for this purpose, and request the Legislature to inquire into the advantages of such an improvement.

THE STRAUSS CLOCK.

Another most valuable equipment to the Institution is a clock placed in the tower of the Educational Building, and with striking attachments and bell, weighing one thousand pounds. This has been in use only since last January, but so necessary has this timepiece with its accurate marking of hours and half hours, come to be to the life and comfort of the household, that it is a wonderment how we lived without it. The clock was built by the Seth Thomas Clock Company, and is of the finest workmanship. It has four dials, runs for eight days without winding, and is guaranteed for five years not to vary fifteen seconds in a month. As a matter of fact, it has not varied ten seconds a month for the past six months. This useful piece of machinery has been obtained without cost to the State. Some years ago the late Louis Strauss, of San Francisco, left by will the sum of \$5,000 to the Institution for the Deaf and Dumb, and the Blind, coupled only with the restriction that the principal should be invested in mortgage on San Francisco property, and should not be impaired. From the accumulated interest of this sum, the Directors appropriated \$1,375 for the purchase of the machinery, and in grateful remembrance of the donor of the fund, they have called it the "Strauss Clock," and have had a suitably engraved plate attached to the frame commemorating this fact.

And this leads me to speak of a great advantage which a permanent and growing fund affords to the Directors of a school like this in enabling them to devise and to do many things that are not strictly within the province of the State. By this means they can found scholarships, loan money to deserving graduates, give outfits for a start in life, and, when exceptional talent is exhibited by pupils, offer them pecuniary assistance which may be needed for its development either at home or abroad. I think it would be difficult to estimate the full measure of benefit which has been derived by the Institution and its pupils from the money left by Mr. Robert Durham, of Butte County, and Mr. Louis Strauss, of San Francisco. The original sums paid into the treasury of of the Institution by the executors of those two generous men were as follows:

DURHAM FUND.

From the estate of Robert Durham, after deducting all expenses.....	\$33,673 83
Interest to June 30, 1890.....	32,740 12
Total proceeds.....	\$66,413 95
Expended for various purposes benefiting the Institution and its pupils.....	20,046 40
Amount of fund to date.....	\$46,367 55

STRAUSS FUND.

Received from the estate of Louis Strauss.....	\$5,000 00
Interest to June 30, 1890.....	2,454 90
Total proceeds.....	\$7,454 90
Expended for clock.....	\$1,375 00
Expended for sundry purposes.....	956 95
Total expenditure.....	2,331 95
Amount in fund at date.....	\$5,122 95

In spite of the large sum put out in various ways and places where it will do most good, and aggregating a total of over \$22,375, these two funds

have grown from \$38,673 83 to a total of \$51,490 50; and still, year by year, the bequests are accomplishing their beneficent work, and the principal is increasing at the same time.

In this connection it may not be out of place to refer to the success of Mr. Douglas Tilden, who has been enabled to pursue abroad his art studies through the means which the Directors wisely set apart for his use from the Durham Fund. Mr. Tilden has been in Paris only two years, but has had two works accepted and exhibited at the French Salon; and for his second statue, "The Tired Boxer," he received the award of "Honorable Mention," which is the highest honor an American sculptor has ever obtained at the hands of the French Committee.

We mention this incident to illustrate the value of a fund under the control of the Directors. Here was a young man of exceptional talent, but of limited means, who would probably have spent the best, perhaps all, the years of his life in simply earning his daily bread, and yet by judicious help afforded him at a time of need, an honorable, perhaps great, career is brought within his reach. By appropriation from the same fund, Mr. D'Estrella, a graduate and teacher, was sent abroad in the interests of the Art Department, and brought back with him a vast amount of interesting information, which he has been imparting to the pupils ever since. At the present time the Directors are paying the expenses at the San Francisco Art School of a young deaf mute, who gives great promise of eminence as an artist. It may yet be thought best to send him abroad for larger facilities and better instruction. If so, the the Directors have the means to carry out what their judgment dictates.

It gives me pleasure to note an instance of generous liberality on the part of Messrs. Wright & Sanders, architects of San Francisco, by which an important addition is about to be made to the equipment of the Institution. Soon after the fire in 1875, these gentlemen donated \$750, the amount of their commission on the building erected at that time, towards the purchase of a pipe organ. The money was placed at interest, and now amounts to \$1,700. They have added \$800 to this sum, and have ordered a \$2,500 organ, which is in process of construction, and will be put in place in the new Assembly Hall before this report is printed. By this means the resources of the blind pupils will be enlarged, and their happiness increased, and Messrs. Wright and Sanders are entitled to the grateful remembrance of the blind for this timely and useful gift.

Through the generosity of Mr. Albert Bierstadt, of New York, the Institution has received a fine specimen of the work of Vidal, the celebrated blind sculptor. This is a bronze horse, modeled with great skill and truthfulness. It is not only a beautiful ornament, but is a constant reminder of what may be accomplished under difficulties, and thus is a stimulus to the blind and the deaf to high endeavor.

After the disastrous fire of 1875, which turned the whole household out into the night in a single hour, the Directors adopted a system of segregated buildings which would render such a loss of property impossible. From year to year the work of reconstruction has been going on, till now the plan is completed, with the exception of the third Home for the boys. It will be necessary for the Legislature to make an appropriation of \$50,000 to erect this building. When finished, the State will have a property which is worth more than it cost, and of which Mr. Fred H. Wines, Secretary of the Illinois State Board of Charities, wrote: "The school is, in its way, a gem—probably the most perfect in

respect to its general arrangement and the admirable balance of all its parts that I have ever seen." The wisdom of adopting a plan of segregated buildings becomes more and more apparent with the lapse of years. Instead of a large structure liable, as before, to sudden wiping out by fire, we have a group of buildings so separated as to make a great loss practicably impossible. The homes are, to all intents and purposes, fireproof. The segregation of pupils reduces the discipline to something like that of the fireside. The health of the household is vastly improved. The tendency to disorder and insubordination is checked. The danger from epidemics is largely decreased. The problems of light and heat and ventilation are simplified, and while the cost of maintenance is perhaps slightly increased, the advantages in every way more than compensate this item.

We have been reminded on several occasions of the need of a hospital, where cases of contagious disease may be segregated and treated with safety. In a family as large as this, there will always be a percentage of sick who require the care of a special nurse, and the conveniences of a well arranged hospital. Scarlet fever, smallpox, measles, diphtheria, and severe fevers are liable to break out at any time, and at present we have no adequate equipment with which to fight them. I trust, therefore, that provision will be made by the coming Legislature to erect a small building, to cost about \$2,500; where sick children may be cared for with comfort to themselves and safety to the rest of the household.

The income and expenditures of the Institution, during the two fiscal years ending June 30, 1890, have been as follows:

RECEIPTS.		
From balance, June 30, 1888	\$4,634	41
From State appropriation	94,855	12
From Principal	2,383	83
From interest, Union Savings Bank	61	80
Total receipts	\$101,935	16
DISBURSEMENTS.		
For salaries and wages	\$49,974	18
For groceries and provisions	15,234	15
For clothing	1,298	61
For furniture	2,536	44
For building and repairs	4,618	49
For fuel and lights	9,839	44
For laundry	2,195	97
For stable and dairy	5,095	75
For miscellaneous expenses	3,049	41
For industrial department	3,038	30
For articulation department	1,875	00
For salary of Secretary and Treasurer	1,000	00
Total disbursements	\$99,755	99
Balance June 30, 1890	\$2,179	17

The details and items of expenditures will be found in the Principal's dissections herewith submitted.

For the first time in four years, I am obliged to ask for an increase of appropriation for support during the next two years. The increase of pupils continues with that pitiless certainty which characterizes the law of averages. Young and prosperous States have not only the natural increment of population to provide for, but also the additional numbers which come by immigration. California, by her vast and developing

resources, is attracting many settlers from the States east of the Rocky Mountains. They come with all their belongings, but their first and tenderest care is for those children upon whom the burden of deafness and blindness is laid. Good parents, and of such are made the best citizens, would not move to a State where no provision is made for such unfortunate children as they may have, and this accounts for the many letters of inquiry I receive from residents of other States concerning the opportunities afforded in California for educating the blind and deaf. We have had an average attendance of one hundred and seventy-one pupils during the term just closed. The per capita cost has been \$291.69. I respectfully recommend, therefore, that the Board ask the Legislature for an appropriation of \$51,300 for the fiscal year ending June 30, 1892, and of \$53,000 for the year ending June 30, 1893. These figures are based upon an estimated attendance for the first year of one hundred and ninety pupils, and of two hundred pupils the second year, at a per capita of \$270 and \$265, respectively. With the increase of numbers, the per capita cost decreases till it reaches a minimum of about \$250, which is as low as can ever be expected. This is the sum which the State of New York allows for each of its fifteen hundred pupils, where the wages of servants is little more than half the rate of pay for similar service in California.

It is sometimes said by those who have not taken the pains to examine the school and its work, that it costs a great deal to support the Institution and requires a seemingly large extent of housing. This is true, and it may not be out of place here to give the reasons for it. And let me begin by setting forth the material we work with, and what we seek to do with it.

Without education the deaf mute is not only a useless member of the body politic, but often a dangerous character. Ignorant of human or divine law, and uninstructed in the use of his hands, he naturally gravitates to the poor house or the prison; to the latter, however, only as a measure of safety to the citizen, for no Court has ever inflicted confinement or execution as a punishment for murder or crime committed by an uneducated deaf mute. But whether he goes to the almshouse, to the jail, or wanders aimlessly about the country, in any case he is either an active danger or a dead weight for society to carry. Now it is this useless, often dangerous material that the Institution deals with, and attempts to convert into useful, productive citizens. To bring about this result involves a somewhat complicated domestic establishment and educational machinery, because a whole and symmetrical man or woman is to be developed out of the child that comes to us. For a great portion of many years the Institution is to its pupils home, school, and shop. We have not only to provide for both sexes, but for two classes of each. The blind are as far apart from the deaf in their methods of instruction, as both are from normal children. Separate apartments, special teachers, and peculiar apparatus have to be provided for those whose senses of touch and hearing must do the work of the eye. In short, we are carrying on *two* institutions under one management. All special work is expensive, and the work here is not only special but varied. Classes are necessarily small, and the number of teachers correspondingly increased. A large number of our pupils have to be taught speech and lip reading, and this requires additional and special teachers and rooms. Music must be taught to the blind, both as a means of livelihood and as a

resource of enjoyment. In these days the many applications of pictorial and plastic art to the industries of life make the facile use of the pencil and brush an important aid to success. Especially is this true of the deaf, and so an art department is a necessary function of a well equipped school of this sort. Whether trade schools are a proper and necessary part of the public school system may be questioned, but there is no doubt that instruction in mechanic arts is an indispensable adjunct to the work of an institution for the deaf and dumb. There is no time after the pupils leave school to go through the needful apprenticeship, and nobody will take the trouble to teach boys who cannot hear the intricacies of a handicraft. The training of the shop and the class-room must be carried on simultaneously, and both under the guidance of experienced teachers. Girls, also, must be fitted not only for the intellectual duties of life, but for the discharge of those domestic functions that properly belong to women, whether as managers of their own household or in families for hire. To this end, a cooking school has been established and shops for wood working and printing fitted up for the training of our boys and girls, so that they may be prepared at once to earn their own livelihood, and add something to the productive forces of the community when they have finished their time in school.

From all this it will be seen how complicated and comprehensive is the conduct of a school for the deaf and the blind, which, under the segregated plan of building, ought to comprise, first, a home for deaf boys; second, a home for deaf girls; third, a home for blind boys; fourth, a home for blind girls; fifth, a refectory; sixth, a school for deaf pupils; seventh, a school for blind pupils; eighth, a music department with teaching and practice-rooms; ninth, a department for the teaching of speech and lip reading for the deaf; tenth, an art department; eleventh, a hospital where the sick may be cared for; twelfth, a cooking school; thirteenth, a mechanic arts school; fourteenth, a gymnasium where the physical interests of the pupils may be looked after, and care taken that they do not leave us with health or body impaired by neglect or ignorance.

All these diverse functions require much room and cost much money; but, taking into account the material we work with, and the results obtained, I do not know of any investment that pays the State so well.

By an oversight there was no provision made by the last Legislature for the heating apparatus of the new school building and the Girls' Home. The first cost \$1,300, and the second cost \$740, making a total of \$2,040, for which sum the Legislature should be asked to make an appropriation. The wants of the Institution for the next two years may be summarized as follows:

For support, including the articulation and mechanical departments.....	\$104,000 00
For additional Boys' Home.....	50,000 00
For electric light plant.....	2,952 00
For heating apparatus.....	2,040 00
For hospital.....	2,500 00

These sums are all needed for the purposes specified, and, judiciously expended, will complete the Institution and provide for its support till the thirtieth of June, 1893.

ACKNOWLEDGMENT.

The pupils of this Institution are under great obligations to Mr. A. N. Towne, Vice-President and General Manager of the Southern Pacific Railroad Company, for favors extended to them in the way of free transportation to and from their homes. For years the kindness of Mr. Towne has been unremitting and unbounded, and the children owe him a debt of gratitude it is impossible for them to pay.

The favor of half fares granted by the Pacific Coast Steamship Company to the pupils, who live at the coast towns, is also gratefully acknowledged. The thanks of the officers and pupils are also due to the Directors of the Mechanics' Institute for invitations to the fairs held at the Pavilion in San Francisco from year to year. The days spent there are always full of pleasure and profit.

I also desire, in behalf of the pupils, to extend grateful appreciation for the services of Drs. Merriman & Son, the eminent dentists of Oakland, who have relieved so many cases of distress without charge.

In closing this report, it may not be amiss to note the fact that it also rounds out and completes a period of twenty-five years' service on the part of the writer. In 1865 I was called from New York to take charge of the Institution, then located in two cheap buildings on the corner of Fifteenth and Mission Streets in San Francisco. The accommodations were poor and the facilities for carrying on the work meager and inadequate, even for the small number of pupils then housed within its walls. An Act providing for a new site and building was passed by the Legislature in 1866, and under the terms of that Act the present beautiful location secured, and a stone structure erected, to which the school and household were transferred in October, 1869. On the seventeenth of January, 1875, the work of ten years went up in flame, and the wearisome labor of reconstruction began. For fifteen years it has been going on, and to-day we stand on the verge of completion.

In looking back over the quarter of century of service, I forget all the discouragements that at times have beset my path, and think only of the words of cheer and generous support that have lightened every burden and made labor among the people of California a delight. I am happy in the belief that I have had the confidence of every Governor under whose administration I have served. From the members of the various Legislatures who have had to do with appropriations, I have received the most courteous attention, and generous response to all my appeals on behalf of the deaf and the blind. But my greatest good fortune has been in the unselfish Directors, who from time to time have been appointed to the management of this Institution. With scarcely an exception, they have been men of the highest character, wise and conservative, sympathetic and cultured. To their prudent counsel and unfailing support is due whatever of success has attended my administration; and to none of them do I owe more than to you to whom this report is addressed. You have given your time to the service of this Institution, without stint and without reward; your counsel has ever been at my command, and your coöperation and confidence have made the duties of my office comparatively easy. In the hope that I may always prove worthy of the generous kindness you have extended to me, this report is

Respectfully submitted.

BERKELEY, November 1, 1890.

WARRING WILKINSON,
Principal.

ADDENDUM.

The following papers have been sent to the Institution for the use of the pupils, and for which thanks are hereby tendered: Alta California, San Francisco; California Voice, Los Angeles; Deaf-Mute Journal, New York; Mutes' Chronicle, Columbus, Ohio; Goodson Gazette, Staunton, Virginia; Deaf-Mute Advance, Jacksonville, Illinois; Deaf-Mute Hawkeye, Council Bluffs, Iowa; Deaf-Mute Mirror, Flint, Michigan; Mute Journal, Omaha, Nebraska; Deaf-Mute Optic, Little Rock, Arkansas; Mutes' Companion, Faribault, Minnesota; Deaf-Mute Times, Delevan, Wisconsin; Kansas Star, Olathe, Kansas; Daily Paper for Our Little People, Rochester, New York; Texas Ranger, Austin, Texas; Deaf-Mute Record, Fulton, Missouri; Silent Observer, Nashville, Tennessee; Deaf-Mute Voice, Jackson, Mississippi; Deaf-Mute Bulletin, Frederick City, Maryland; Register, Rome, New York; Tablet, Romney, West Virginia; Kentucky Deaf-Mute, Danville, Kentucky; Auralist, Chicago; Colorado Index, Colorado Springs, Colorado; Silent World, Philadelphia, Pennsylvania; Dakota Advocate, Sioux Falls, South Dakota; Silent Worker, Trenton, New Jersey; Sign, Salem, Oregon; Clionian, Portland, Oregon; Silent Educator, Flint, Michigan; Deaf-Mute Critic, Dubuque, Iowa; Deseret Eagle, Salt Lake City, Utah; Silent Hoosier, Indianapolis, Indiana; Deaf-Mute Pelican, Baton Rouge, Louisiana; Herald, Berkeley; Advocate, Berkeley; Bumble Bee, Alameda; Sioux, Red Field College, South Dakota; Evening Post, San Francisco; New Method, Englewood, Illinois.

PRINCIPAL'S DISSECTIONS OF EXPENDITURES FOR TWENTY-FOUR MONTHS ENDING JUNE 30, 1890.

GENERAL FUND.

Groceries and Provisions.

Ammonia	\$4 30
Apple butter	20 40
Bacon, 807½ pounds	96 91
Baking powder, 16½ dozen	88 97
Bath brick, 4 dozen	2 30
Beans, 3,227 pounds	86 39
Borax, 5 pounds	75
Breakfast Gem	7 00
Butter, fresh, 8,868 pounds	1,998 68
Butter, pickled, 798 pounds	239 40
Callustro	11 37
Canned goods, 304 dozen	527 25
Capers, 2 dozen	2 90
Carb. soda, 36 pounds	2 64
Cheese, 1,262½ pounds	155 65
Chicory, 576 pounds	39 25
Chocolate, 108 pounds	27 30
Cinnamon	70
Citron, 20 pounds	5 00
Cocoa, 48 pounds	19 20
Cocoonut, 26 pounds	7 70
Coffee, 2,219 pounds	508 20
Cooking wine, 8 gallons	23 50
Corn meal, 1,450 pounds	30 90
Corn starch, 230 pounds	21 12
Crackers, soda, 2,434 pounds	156 13
Crackers, sweet, 852 pounds	79 98
Cream of tartar, 24 pounds	7 92
Crushed Indian, 160 pounds	9 25
Currants, 176 pounds	13 50
Curry, 3 bottles	50
Eggs, 1,641½ dozen	449 34
Extracts, 20 quarts	24 80
Farina, 100 pounds	4 19
Fish, fresh	112 85
Fish, salt	102 11
Flour, white, 362 barrels	1,621 10
Flour, graham, 6½ barrels	28 40
Fruit, dried, 2,989 pounds	250 19
Fruit, fresh	404 37
Gelatine, 7 dozen	9 94
Ginger, 15 pounds	2 70
Ham, 643 pounds	91 74
Hominy, 164 pounds	9 80
Hops, 43 pounds	9 70
Honey	50
Horseradish	90
Lard, 2,340 pounds	231 23
Macaroni, 548 pounds	38 92
Mace	50
Malt, 50 pounds	1 75
Meat, 60,860 pounds	3,883 67
Molasses, 118½ gallons	64 06
Mustard, 60 pounds	9 25
Nutmeg	10
Oatmeal, 1,460 pounds	47 01
Oats, rolled, 910 pounds	62 73
Olive oil, 17½ dozen	74 18
Pearl barley, 125 pounds	4 45
Peas, 150 pounds	3 75
Peas, split, 75 pounds	3 63
Pepper, 108 pounds	21 50
Pickles	56 25
Potatoes, 55,866 pounds	805 72
Poultry	242 09
Raisins, 160 pounds	15 75
Rice, 1,902 pounds	102 33
Sago, 60 pounds	3 65

Saleratus, 60 pounds.....	\$4 68	
Sal soda, 1,930 pounds.....	32 28	
Salt, coarse, 2,156 pounds.....	13 47	
Salt, table, 5,703 pounds.....	46 62	
Saltpetre, 20 pounds.....	3 50	
Sapolio, 30½ dozen.....	21 70	
Sauce, 8 dozen.....	22 40	
Silicon, 4 dozen.....	4 35	
Soap, brown, 5,480 pounds.....	270 25	
Soap, white, 1,120½ pounds.....	110 02	
Soap, toilet.....	16 15	
Sugar, brown, 5,276 pounds.....	328 80	
Sugar, cube, 851 pounds.....	66 58	
Sugar, crushed, 632 pounds.....	46 66	
Sugar, golden C, 4,170 pounds.....	256 32	
Sugar, granulated, 9,168 pounds.....	680 49	
Sugar, powdered, 480 pounds.....	41 52	
Syrup, 342 gallons.....	80 24	
Tagliarini, 47 pounds.....	3 45	
Tapioca, 120 pounds.....	7 38	
Tea, 439½ pounds.....	111 35	
Thyme, sage, etc.....	11 58	
Vegetables.....	24 76	
Vermicelli, 124 pounds.....	9 97	
Vinegar, 195 gallons.....	25 62	
Yeast.....	4 15	
		\$15,234 50

Salaries and Wages.

Principal and teachers.....	\$29,897 06	
Physician, clerk, and matrons.....	7,420 00	
Servants and services.....	12,657 12	
Treasurer.....	1,000 00	
		50,974 18

Clothing.

Boots and shoes, 89 pairs.....	\$145 50	
Buttons.....	12 45	
Clothes brushes.....	3 50	
Collars.....	1 50	
Combs, 10 dozen.....	10 30	
Dress goods.....	41 80	
Dressmaking.....	19 00	
Gossamers, 5.....	5 65	
Hair brushes, 4 dozen.....	15 75	
Handkerchiefs, 10 dozen.....	6 60	
Hats, 27.....	22 75	
Hose, 9½ dozen.....	23 65	
Marking ink, 3 dozen.....	6 00	
Nail and tooth brushes, 7 dozen.....	11 63	
Neckties.....	3 25	
Pants, 25 pairs.....	37 25	
Pins and needles.....	8 91	
Repairing shoes.....	429 20	
Repairing hair clippers.....	7 25	
Rubber shoes, 3 dozen pairs.....	11 84	
Shirts, 3½ dozen.....	30 00	
Shoe laces.....	6 85	
Silesia.....	30	
Suits clothes, 39.....	267 00	
Suspenders, 3 dozen.....	6 75	
Shoe blacking.....	17 20	
Shoe brushes, 6 dozen.....	17 40	
Thread.....	42 14	
Trimmings.....	31 13	
Trunk.....	3 25	
Underwear.....	52 81	
		1,298 61

Furniture.

Baskets.....	\$19 90	
Bedsteads, 7.....	42 00	
Bedticking.....	17 79	
Blankets, 34 pairs.....	131 50	
Brooms, 19½ dozen.....	78 33	
Calico, 379½ yards.....	19 74	
Carpets and lining.....	301 30	

Carpet cleaning	\$75 29
Chairs	77 50
Clocks, repairing	18 40
Flannel	8 50
Glassware, crockery, and cutlery	267 70
Curtains and curtain goods	66 11
Dust and floor brushes, 6½ dozen	52 33
Dust pans	2 50
Feather dusters	3 96
Hair for mattresses, 150 pounds	85 50
Kitchen utensils	1 60
Looking glass	5 00
Mats and matting	26 50
Mattresses and repairs	317 84
Mop cloths, 14	32 52
Mop and brush handles	6 33
Napkins	8 75
Napkin rings	6 00
Oil cloths	3 45
Pails, 4½ dozen	17 30
Paper bags	5 60
Papering	93 00
Picture frames	2 50
Preserve jars and cans	55 25
Quilts, 30	27 75
Range and stove repairs	55 32
Repairing furniture	70 47
Scrub brushes, 12½ dozen	37 84
Sewing machine repairs	1 00
Sponges	5 50
Sheeting, 684½ yards	142 95
String	8 99
Table cloths	98 80
Towels and toweling	71 44
Towel rack	50
Tinware and repairs	137 89
Window shades	19 75
Whisk brooms, 2 dozen	3 00
Wooden bowls	5 25

\$2,536 44

Building and Repairs.

Belting	\$2 21
Blacksmithing	3 00
Cement, 86½ barrels	318 10
Engine repairs	45 10
Fire clay	6 00
Glass, putty, etc.	238 48
Gravel	31 00
Hardware	643 32
Heating apparatus	1,559 00
Lime, 13 barrels	19 75
Lumber	647 97
Packing for engine	64
Painting	197 93
Paints, oils, and brushes	160 82
Pipe covering	53 35
Plaster	12 50
Plumbing supplies	194 54
Range repairs	133 24
Repairing slate roof	167 50
Repairing tank	28 00
Sand, 46 loads	92 00
Sewer pipe, 52 feet	8 12
Step repairs	44 75
Wire netting, 840 feet	11 07

4,618 39

Fuel and Light.

Candles, 40½ pounds	\$5 70
Charcoal, 2 sacks	1 30
Coal, Brymbo, 115 tons 1,170 pounds	1,567 50
Coal, South Prairie, 46 tons 960 pounds	436 05
Coal, mixed, 16 tons 610 pounds	170 88
Coal, Wellington, 124 tons 1,290 pounds	1,320 59
Coal, Wellington, screenings, 124 tons 1,970 pounds	931 81
Coal oil, 425 gallons	97 15

Electric light fixtures	\$1,008 95
Gasoline, 7,840 gallons	1,857 01
Gas and lamp chimneys, 19½ dozen	15 05
Machine oil, 66 gallons	43 65
Matches, 20 gross	8 45
Repairing gas fixtures	7 55
Scale preventive, 10 gallons	5 00
Wages, engineers	2,236 00
Wicks, etc.	8 55
Wood, 11½ cords	118 25

\$9,839 44

Laundry.

Baskets, 7	\$15 60
Blueing	18 38
Caustic soda, 710 pounds	110 90
Chloride of lime, 95 pounds	4 31
Clothespins	90
Elevator	80 00
Pan for furnace	5 00
Rosin	70
Sal soda, 2,363 pounds	41 12
Soap, borax, 100 pounds	5 50
Soap boiler	7 50
Starch, 792 pounds	39 06
Tallow, 386 pounds	17 38
Wages	1,845 00
Wax, 17 pounds	4 62

2,195 97

Stable and Dairy.

Barley, 7,672 pounds	\$71 49
Bran, 92,055 pounds	716 36
Brooms	2 00
Chamois skins	3 00
Corn, 815 pounds	11 23
Cream	75
Currycombs	1 58
Cutting hay	2 00
Farm implements	68 49
Harness repairs	59 90
Harness oil	50
Hay, 273,530 pounds	1,436 79
Horse shoeing and clipping	144 00
Middlings, 19,526 pounds	185 87
Oats, 8,792 pounds	121 09
Oilcake, 10,786 pounds	171 11
Pails, etc.	2 68
Repairing buggies and wagons	263 20
Sponges	1 80
Stock	187 50
Straw, 110 bales	49 35
Veterinary expenses	20 50
Wages	1,440 17
Wagon	120 75
Wheat, 840 pounds	12 14
Whip	1 50

5,095 75

Industrial Department.

Paper	\$25 43
Tools	31 90
Type	24 85
Wages, carpenter	1,096 00
Wages, printer	380 00

1,558 18

Miscellaneous.

Advertising	\$3 40
Blacksmithing	19 95
Books, stationery, etc.	769 88
Cartage	7 50
Christmas expenses	66 76
Collection charges	142 85
Drugs, medicines, etc.	208 37
Diplomas	23 37
Exchange on drafts, etc.	1 35
Expenses clerk to city	5 65

Expenses of pupils, etc.	\$39 40	
Expenses of pupils to oculist.....	80	
Express charges.....	167 10	
Flytraps, 1 dozen.....	2 40	
Freight on supplies.....	87 27	
Hose, 250 feet.....	32 00	
Ice.....	53 40	
Lye, 5 dozen.....	5 80	
Music for the blind.....	30 79	
Repairing and tuning pianos.....	22 00	
Repairing electric apparatus.....	59 96	
Rubber stamps.....	2 00	
Stamps.....	164 42	
Seeds and plants.....	73 57	
Subscription to deaf and dumb annals.....	53 60	
Subscription to newspapers.....	13 30	
Subscription to magazines for the blind.....	7 00	
Traveling expenses.....	242 05	
Telegrams.....	12 60	
Telephone services.....	456 65	
Wrapping paper, etc.....	11 90	
Water, 860,561 gallons.....	259 12	
Wax.....	3 20	
		\$3,049 41
Total.....		\$96,400 87

BIENNIAL STATEMENT OF THE TREASURER.

GENERAL STATEMENT.

Receipts and Disbursements for the two years ending June 30, 1890.

	Fortieth Fiscal Year.	Forty-first Fiscal Year.	Total.
RECEIPTS.			
July 1, 1888, cash on hand			\$4,634 41
From State Treasurer, support	\$45,750 00	\$45,750 00	91,500 00
From miscellaneous receipts	987 18	1,446 65	2,383 83
From dividends, Union Savings Bank		61 80	61 80
From State Treasurer, conservatory building	854 10		854 10
From State Treasurer, educational building	4,140 30	40,021 63	44,161 93
From State Treasurer, grading and macadamizing	343 25		343 25
From State Treasurer, water supply		3,103 72	3,103 72
From State Treasurer, mechanical department		1,480 12	1,480 12
From State Treasurer, articulation department		1,875 00	1,875 00
From State Treasurer, girls' home		29,322 65	29,322 65
From State Treasurer, electric plant		1,000 00	1,000 00
From State Treasurer, furnishing school building		781 95	781 95
From State Treasurer, type writers		285 00	285 00
From State Treasurer, painting buildings	854 18		854 18
From State Treasurer, boiler, etc.		2,000 00	2,000 00
	\$52,879 01	\$127,128 52	\$184,641 94
DISBURSEMENTS.			
For salaries and wages	\$27,576 83	\$28,784 50	\$56,561 33
For salaries and wages (General Fund)	941 75		941 75
For supplies	17,714 84	16,882 16	34,597 00
For supplies (General Fund)	1,349 45	1,999 35	3,348 80
For Treasurer's salary	500 00	500 00	1,000 00
For sundries	152 00		152 00
For educational building	4,140 30	40,021 63	44,161 93
For grading and macadamizing	343 25		343 25
For painting buildings	854 18		854 18
For new girls' home building		29,322 65	29,322 65
For water supply		3,103 72	3,103 72
For mechanical department		1,480 12	1,480 12
For articulation department		1,875 00	1,875 00
For electric plant		1,000 00	1,000 00
For furnishing school building		781 95	781 95
For type writers		285 00	285 00
For conservatory building	854 10		854 10
For boiler, etc.		2,000 00	2,000 00
	\$54,426 70	\$128,036 08	\$182,462 78
July 1, 1890, balance cash on hand			2,179 16
			\$184,641 94

DETAILED STATEMENT.

GENERAL FUND.

Receipts.

July 1, 1888—Cash on hand.....	\$4,634 41
From State Treasurer, support.....	91,500 00
From miscellaneous receipts.....	2,445 63
Total.....	<u>\$98,580 04</u>

Disbursements.

For salaries and wages.....	\$57,303 08
For supplies.....	37,945 80
For Treasurer's salary.....	1,000 00
For sundries.....	152 00
July 1, 1890—Balance, cash on hand.....	2,179 16
	<u>\$98,580 04</u>

SPECIAL APPROPRIATIONS.

CONSERVATORY BUILDING FUND.

From State Treasurer.....	\$854 10
Disbursed as per vouchers.....	<u>854 10</u>

PAINTING BUILDING FUND.

From State Treasurer.....	\$854 18
Disbursed as per vouchers.....	<u>854 18</u>

GRADING AND MACADAMIZING FUND.

From State Treasurer.....	\$343 25
Disbursed as per vouchers.....	<u>343 25</u>

EDUCATIONAL BUILDING FUND.

From State Treasurer.....	\$44,161 93
Disbursed as per vouchers.....	<u>44,161 93</u>

NEW GIRLS' HOME BUILDING FUND.

From State Treasurer.....	\$29,322 65
Disbursed as per vouchers.....	<u>29,322 65</u>

MECHANICAL DEPARTMENT FUND.

From State Treasurer.....	\$1,480 12
Disbursed as per vouchers.....	<u>1,480 12</u>

ARTICULATION DEPARTMENT FUND.

From State Treasurer.....	\$1,875 00
Disbursed as per vouchers.....	<u>1,875 00</u>

WATER SUPPLY FUND.

From State Treasurer.....	\$3,103 72
Disbursed as per vouchers.....	<u>3,103 72</u>

ELECTRIC PLANT FUND.

From State Treasurer.....	\$1,000 00
Disbursed as per vouchers.....	<u>1,000 00</u>

FURNISHING SCHOOL BUILDING FUND.

From State Treasurer.....	\$781 95
Disbursed as per vouchers.....	<u>781 95</u>

TYPE WRITER FUND.

From State Treasurer.....	\$285 00
Disbursed as per vouchers.....	<u>285 00</u>

BOILER FUND.

From State Treasurer.....	\$2,000 00
Disbursed as per vouchers.....	<u>2,000 00</u>

TRUST FUNDS.

Durham Fund.

July 1, 1888—Receipts—Cash on hand.....	\$17,230 37
From interest and dividends.....	5,303 68
Proceeds Henri Windel's note.....	10,000 00
Total.....	<u>\$32,534 05</u>

July 1, 1888—Disbursements—For scholarships.....	\$464 57
To Douglas Tilden.....	1,221 80
To T. de Estrella.....	250 00
For sundries.....	230 13
Loan, Adolph Schroeder.....	17,500 00
July 1, 1890—Balance cash on hand.....	12,867 55
	<u>\$32,534 05</u>

Louis Strauss Fund.

July 1, 1888—Receipts—Cash on hand.....	\$1,352 52
From dividends.....	263 43
Proceeds Henri Windel's note.....	5,000 00
Total.....	<u>\$6,615 95</u>
Disbursements—as per vouchers—Sundries.....	\$118 00
For clock.....	1,375 00
July 1, 1890—Balance cash on hand.....	5,122 95
	<u>\$6,615 95</u>

LIBRARY FUND.

July 1, 1888—Receipts—Cash on hand.....	\$1,378 63
From dividends.....	122 46
Total.....	<u>\$1,501 09</u>
Disbursements as per vouchers.....	\$317 96
July 1, 1890—Balance cash on hand.....	1,183 13
	<u>\$1,501 09</u>

ORGAN FUND.

July 1, 1888—Receipts—Cash on hand.....	\$1,532 27
From dividends.....	156 29
Total.....	<u>\$1,688 56</u>
July 1, 1890—Balance cash on hand.....	1,688 56
	<u>\$1,688 56</u>

STATEMENT OF CASH BALANCES.

July 1, 1890—On deposit in Union Savings Bank to credit General Fund.....	<u>\$2,179 16</u>
On deposit in Union Savings Bank to credit of Durham Fund.....	\$12,867 55
On deposit in Union Savings Bank to credit of Louis Strauss Fund.....	5,122 95
On deposit in Union Savings Bank to credit of Library Fund.....	1,183 13
On deposit in Union Savings Bank to credit of Organ Fund.....	1,688 56
Total.....	<u>\$20,862 19</u>
Loans on real estate securities.....	\$33,500 00
Loaned to Theodore Grady.....	600 00
Loaned to Douglas Tilden.....	1,721 80
Balance cash on hand.....	20,862 19
Total value trust funds.....	<u>\$56,683 99</u>
Mortgage investments, Adolph Schroeder.....	\$17,500 00
Mortgage investments, John Staude.....	16,000 00
Mortgage investments, Theodore Grady.....	600 00
Mortgage investments, Douglas Tilden.....	1,721 80
Balance cash on hand.....	20,862 19
	<u>\$56,683 99</u>

W. L. PRATHER.

Treasurer.

OAKLAND, CAL., August 22, 1890.

Subscribed and sworn to before me, this fourteenth day of October, 1890.

J. W. MOSS, Notary Public.

LIST OF PUPILS IN THE INSTITUTION.

NAME.	Town.	County.
<i>Boys.</i>		
Anderson, Adolf	Oakland	Alameda.
Bean, David M.	San Francisco	San Francisco.
Brown, Geo. W.	Traver	Tulare.
Bucking, Geo. F.	San Francisco	San Francisco.
Burgess, Rybert J.	Etiwanda	San Bernardino.
Butler, Louis L.	Stillwater	Shasta.
Carpenter, Ernest	Fallbrook	San Diego.
Cator, Azro A.	San Francisco	San Francisco.
Coder, Sherman B.	Arabella	Lake.
Cohn, Bennie D.	San Francisco	San Francisco.
Cole, Jay	Chico	Butte.
Collischonn, Fred.	San Francisco	San Francisco.
Connelly, John	San Francisco	San Francisco.
Cotter, William	Haywards	Alameda.
Coulter, Chas. B.	San Andreas	Calaveras.
Cretzer, Elza	San Francisco	San Francisco.
Curtiss, Fred. W.	Paradise	Butte.
Daggett, Jas. W.	Oakland	Alameda.
Demartini, Andrew	Brentwood	Contra Costa.
Dilke, John T.	Sacramento	Sacramento.
Donoho, Augustus	Dixon	Solano.
Dugan, Edward	Janesville	Lassen.
Fritz, Geo. H.	Los Angeles	Los Angeles.
Funkenstein, Leon	San Francisco	San Francisco.
Gale, William D.	San José	Santa Clara.
Garrido, Francisco	San Francisco	San Francisco.
Goodrich, Doney H.	Geyserville	Sonoma.
Green, Ray	Temescal	Alameda.
Gross, Chas. A.	Stockton	San Joaquin.
Guinessi, Victor	San Francisco	San Francisco.
Haley, James E.	Adin	Modoc.
Hartman, Edwin	San Francisco	San Francisco.
Hatch, Joseph	Cottonwood	Shasta.
Hawver, Geo. E.	Los Angeles	Los Angeles.
Heckman, Fred. W.	San Francisco	San Francisco.
Hinman, Gage J.	Nicolaus	Sutter.
Hoffman, Edward	St. Helena	Napa.
Horn, Sigmond	San Francisco	San Francisco.
Howson, James	Sacramento	Sacramento.
Hughes, William	San Francisco	San Francisco.
Iert, Gustav	Antioch	Contra Costa.
Iert, Herman H.	Antioch	Contra Costa.
Jackson, Louie B.	Fruitvale	Alameda.
Jacobs, Isadore H.	San Francisco	San Francisco.
Jacobs, Monroe	Monson	Tulare.
Johnson, James H.	Madison	Yolo.
Kaiser, Geo. H.	Vallejo	Solano.
Kavanaugh, Wm. J.	Alameda	Alameda.
Keesing, Barnett	San Francisco	San Francisco.
Kinevan, Patrick	Goleta	Santa Barbara.
King, Chauncey	Santa Barbara	Santa Barbara.
Koch, Charles	Lancha Plana	Amador.
Lake, Frank	Santa Cruz	Santa Cruz.
Laughlin, Joseph	Los Angeles	Los Angeles.
Lehman, Conrad	San Francisco	San Francisco.
Lester, Walter M.	Berkeley	Alameda.
Lewis, Beverly	Tracy	San Joaquin.
Lewis, James	Capay	Yolo.
Liddle, Bertrand L.	Bryson	Monterey.
Lipsett, Robert A.	San José	Santa Clara.

LIST OF PUPILS—Continued.

NAME.	TOWN.	COUNTY.
Lociceto, John	San Francisco	San Francisco.
Lohmeyer, Ed. W. F.	San Francisco	San Francisco.
Love, Dugald M.	Antioch	Contra Costa.
McCarty, W. E.	San Francisco	San Francisco.
McPeake, Thomas	San Pablo	Contra Costa.
Mensor, Fred.	San Francisco	San Francisco.
Miller, Chas. F.	Stockton	San Joaquin.
Miller, Joseph	Lorin	Alameda.
Morse, Elmer R.	Oakland	Alameda.
Munch, Anthony B.	San Francisco	San Francisco.
Murphy, Joseph	San Francisco	San Francisco.
Norton, Mayhew	Oakland	Alameda.
O'Brien, Daniel	San Francisco	San Francisco.
O'Malley, John M.	Irvington	Alameda.
Page, John	Berkeley	Alameda.
Parlour, John George	Oakland	Alameda.
Pearson, Wm.	Los Angeles	Los Angeles.
Presley, Hiram M.	Lompoc	Santa Barbara.
Raffeto, Frank	San Francisco	San Francisco.
Redmond, G. S.	Parkfield	Monterey.
Reeves, Clare	Calistoga	Sonoma.
Reynolds, Robert	Oakland	Alameda.
Rhodes, Rodney	Woodland	Yolo.
Robles, Wm.	Montecito	Santa Barbara.
Rundé, Winfield S.	San Francisco	San Francisco.
Sanguinetti, A.	Stockton	San Joaquin.
Saunders, James L.	Fresno	Fresno.
Schroder, George	San Francisco	San Francisco.
Selig, Isadore	San Francisco	San Francisco.
Shaw, James H.	Salinas	Monterey.
Sievers, Henry	Stockton	San Joaquin.
Silva, Charles	Riverside	San Bernardino.
Stafford, Monterville	Visalia	Tulare.
Stewart, Alva	Petaluma	Sonoma.
Stewart, James H.	Los Angeles	Los Angeles.
Stiles, Fred. A.	Santa Clara	Santa Clara.
Strobel, Fred. G.	San Francisco	San Francisco.
Sweetman, John	San Francisco	San Francisco.
Taber, Hal	Antioch	Contra Costa.
Taber, Oscar D.	Butte City	Colusa.
Tripp, W. H.	Stockton	San Joaquin.
Walters, Frank	San Francisco	San Francisco.
Wiley, Thomas	San Francisco	San Francisco.
Williams, Halleck	Tracy	San Joaquin.
Williams, Leister	Oakland	Alameda.
<i>Girls.</i>		
Adair, Mary J.	Los Angeles	Los Angeles.
Alexander, Florence	Berkeley	Alameda.
Ankeney, Frances	Sacramento	Sacramento.
Ashworth, Jessie	Chico	Butte.
Boyer, Lillie D.	Fresno	Fresno.
Brimmer, Leonora	Santa Cruz	Santa Cruz.
Campbell, Marie	Berkeley	Alameda.
Casey, Cora	Sacramento	Sacramento.
Chandler, Maggie	Tulare	Tulare.
Craddock, Rose	Shasta	Shasta.
Cohn, Celia	San Francisco	San Francisco.
Cole, Elizabeth D.	Oakland	Alameda.
Crawford, Carrie	Berkeley	Alameda.
Cromley, Carrie	Tulare	Tulare.
Daggett, M. E.	Oakland	Alameda.
Decker, Delia	Chico	Butte.
DeFrees, Mary A.	Oakland	Alameda.
Degouy, Marguerite	San Francisco	San Francisco.
Di Vecchio, Ida	San José	Santa Clara.
Dobner, Ethel	San José	Santa Clara.
Doren, Theresa	San Pablo	Contra Costa.
Downes, Mary	San Francisco	San Francisco.
Dugan, Mary E.	San Francisco	San Francisco.

LIST OF PUPILS—Continued.

NAME.	Town.	County.
Finch, Ethel E.	Monterey	Monterey.
Funkenstein, Pauline	San Francisco	San Francisco.
Gande, Mabel A.	San Francisco	San Francisco.
Gande, Ida	San Francisco	San Francisco.
Gould, Maude H.	Orange Vale	Sacramento.
Gould, Louise F.	Orange Vale	Sacramento.
Gilbert, Angele	San Francisco	San Francisco.
Hatch, Adeline	Cottonwood	Shasta.
Hennessey, Isabella	San Francisco	San Francisco.
Hinman, Mabel A.	Sheridan	Placer.
Hopper, Lenney	Alameda	Alameda.
Horrick, Lizzie	San Francisco	San Francisco.
Howell, Marcia	Poplar	Tulare.
Jackson, Estella	Fruitvale	Alameda.
Johnson, Lucy	Berkeley	Alameda.
Kuffel, Wilina	Petaluma	Sonoma.
Lamey, Lydia	San Francisco	San Francisco.
Larner, Theresa	San Diego	San Diego.
Ledden, Gertrude	San Francisco	San Francisco.
Lindstrom, Anna M.	Oakland	Alameda.
Lorensen, Emma	Chualar	Monterey.
Lynch, Irene	San Francisco	San Francisco.
Martinez, Natividad	Montecito	Santa Barbara.
Maury, Laura	San Leandro	Alameda.
McGrath, Mary	San Francisco	San Francisco.
Miller, Clara S.	Stockton	San Joaquin.
Mucha, Rosa	San Francisco	San Francisco.
Norton, Frances A.	Oakland	Alameda.
O'Toole, Maggie	Madrone	Santa Clara.
Petersen, Rassmine	West Berkeley	Alameda.
Phelps, Fannie	Pomona	Los Angeles.
Porter, Fanny E.	Turlock	Stanislaus.
Presley, Patty B.	Lompoc	Santa Barbara.
Regli, Josephine	San Francisco	San Francisco.
Reichert, Mabel	Dixon	Solano.
Robles, Louisa	Montecito	Santa Barbara.
Rowe, Tillie	Auburn	Placer.
Sieferman, Emile	Woodland	Yolo.
Summers, Jessie	Waterford	Stanislaus.
Peralta, Maria A.	Warm Springs	Alameda.
Paralta, Corina	Warm Springs	Alameda.
Welch, Nellie	Virginia City	Nevada.
Westfall, Dora A.	Berkeley	Alameda.

Blind—Males.

Bacigalupi, Lucien	Oakland	Alameda.
Barkhausen, August	San Francisco	San Francisco.
Bowman, Fred	San Francisco	San Francisco.
Brooks, William	Oakland	Alameda.
Carroll, Wm.	Los Angeles	Los Angeles.
Coffey, John F.	San Francisco	San Francisco.
Crossfield, Wm.	San Francisco	San Francisco.
De Sales, Joseph	San Francisco	San Francisco.
Ford, John	San Francisco	San Francisco.
Henderson, Clarence	Horr's Ranch	Stanislaus.
Henderson, Raymond	Horr's Ranch	Stanislaus.
Henry, Jacob	Redondo Beach	Los Angeles.
Hornsby, James	Poplar	Tulare.
Howard, Albert	Colfax	Placer.
Jensen, Peter	Suisun	Solano.
King, Frank J.	Monterey	Monterey.
Kirkpatrick, Gerald	San Francisco	San Francisco.
Kleutsch, Frank J.	San Francisco	San Francisco.
Krasky, Daniel	Tulare	Tulare.
Lahey, Michael	San Francisco	San Francisco.
McLaughlin, Geo.	Petaluma	Sonoma.
O'Connor, John W.	Oakland	Alameda.
Perry, Newell L.	Millville	Shasta.
Richville, Geo.	Oakland	Alameda.
Sedgwick, Thos. F.	Berkeley	Alameda.
Silva, John	Haywards	Alameda.
Smith, Cecil H.	Oakland	Alameda.

LIST OF PUPILS—Continued.

NAME.	Town.	County.
<i>Blind—Females.</i>		
Eastman, Mary W.	San Francisco	San Francisco.
Fallon, Kate	West Berkeley	Alameda.
Foley, Kate	Duarte	Los Angeles.
Hanchett, Grace	San José	Santa Clara.
Johnson, Regenia	Montgomery Creek	Shasta.
Labarraque, Christine	San Felipe	Santa Clara.
Logan, Elizabeth	Penryn	Placer.
Madrid, Esperanza	Visalia	Tulare.
Mast, Augusta E.	San Francisco	San Francisco.
Mullaney, Dorenda	San Francisco	San Francisco.
Oxton, Amelia	San Francisco	San Francisco.
Ramsell, Annie	San Francisco	San Francisco.
Silva, Maggie	San Francisco	San Francisco.
Smith, Johanna	San Francisco	San Francisco.
Stolberg, Katie	Los Angeles	Los Angeles.
Whaley, Lizzie	San Francisco	San Francisco.
Young, Hattie L.	San Francisco	San Francisco.

TERMS OF ADMISSION.

The California State Institution for the Deaf and Dumb, and the Blind, is located at Berkeley, about four miles north of the city of Oakland. Between San Francisco and Berkeley a steam ferry plies almost every half hour in the day, and from Oakland a railroad is constructed, which lands passengers within easy walking distance of the Institution.

First—The Institution offers its benefits to all deaf and dumb, or blind persons who are of age suitable for instruction, and who are of sound intellect, and free from vicious habits and contagious or offensive diseases.

Second—No charge is made for pupils from this State, except for clothing and traveling expenses.

Third—Pupils from other States or Territories are charged \$300 per annum, payable quarterly in advance. No deduction is made from annual charge on any account, except in case of prolonged sickness.

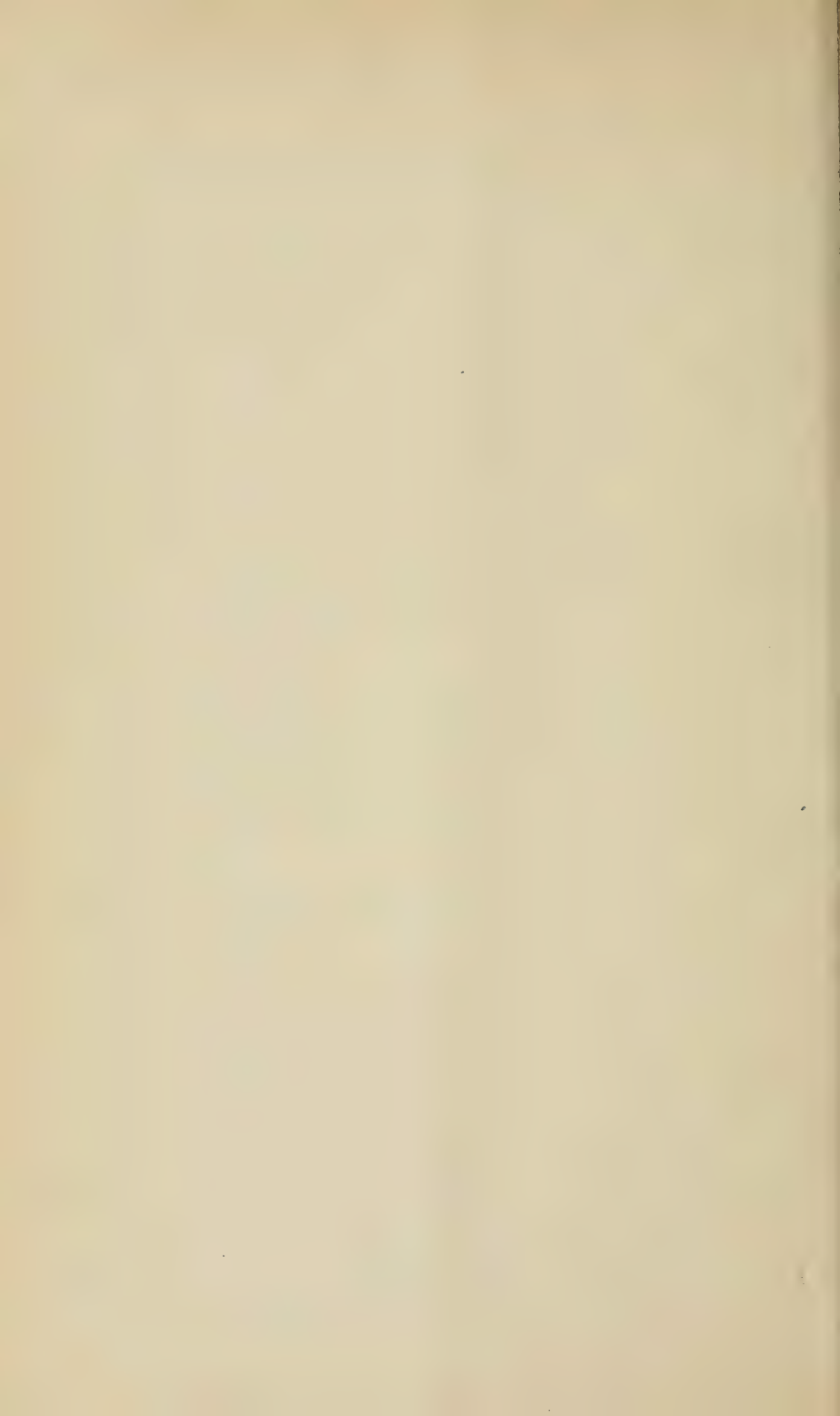
Fourth—The session begins on the fourth Wednesday of August, and closes the second Wednesday of June. Parents are earnestly requested to enter, or return their children, promptly at the beginning of the term. Only in extreme cases will the pupils be permitted to leave before school closes.

Fifth—Pupils should be provided with comfortable clothing when they enter the Institution, and their wardrobe renewed twice a year.

Sixth—All moneys designed for pupils should be placed in the hands of the Principal, to whom, also, all letters of inquiry, etc., should be addressed. Money orders should be drawn on the "Berkeley" Post Office; and all letters, packages, or trunks, should be addressed, "Institution for the Deaf and Dumb, and the Blind, Berkeley, Alameda County, California."

Parents or guardians of applicants for admission are requested to furnish written answers to the following questions:

1. What is the name of the applicant?
2. When and where was he born?
3. Is his deafness or blindness from birth; or is it from accident or disease? If so, at what age and from what cause did he become so?
4. Is his deafness or blindness total or partial? If the latter, what is the degree of hearing or sight?
5. Have any attempts been made to remove his deafness or blindness; and if so, what are the results?
6. Are there any other cases of deafness, blindness, insanity, or idiocy in the same family, or among the collateral branches kindred? If so, how and when produced?
7. Was there any relation between parents or grandparents before marriage?
8. Has the child had the smallpox, scarlet fever, measles, mumps, whooping cough? Has he been vaccinated?
9. What are the names, nationality, occupation, residence, and Post Office address of parents?
10. What is the number of their children?



FIFTH ANNUAL REPORT
OF THE
BOARD OF DIRECTORS
OF THE
INDUSTRIAL HOME OF MECHANICAL TRADES
FOR THE
ADULT BLIND.



SACRAMENTO:
STATE OFFICE : : : J. D. YOUNG, SUPT. STATE PRINTING.
1890.

REPORT.

To the honorable R. W. WATERMAN, Governor of California :

The Board of Directors of the Industrial Home of Mechanical Trades for the Adult Blind herewith submits to you, in pursuance of law, its fifth annual report of the affairs and condition of the Home.

There has been no change in membership of the Board of Directors during the past year, with the exception that the vacancy created by the resignation of Mr. F. M. Smith has been filled by the appointment of Mr. Jacob Greenhood.

The officers of the Home are as follows: President of the Board of Directors, John P. Irish; Vice-President of the Board, Warren Olney; Secretary and Treasurer, L. A. Redman; Superintendent of the Home, Joseph Sanders; Physician of the Home, Andrew Fine, M.D. The salary of the Superintendent is \$2,100 per annum, of the Physician \$1,200 per annum, and of the Secretary \$500 per annum.

The employés of the Home and their rates of compensation are as follows:

Foreman of the workshops, per month.....	\$50 00
Clerk.....	40 00
Teacher in female department.....	25 00
Watchman and laborer.....	50 00
Gardener.....	30 00
Drayman.....	25 00
Assistant to foreman.....	16 00
Janitor.....	35 00
First cook.....	35 00
Second cook.....	30 00
Chambermaid.....	25 00
Three waitresses, at \$20 per month each.....	60 00
Total.....	\$421 00

The following are the names of the inmates present at the Home during the year, December 1, 1888, to December 1, 1889:

REPORT OF INDUSTRIAL HOME FOR ADULT BLIND.

NAME.	Date of Admission.	Age When Admitted.	Former Residence.	Native of.	Cause of Blindness.
Fred. V. Anderson.	July 18, 1887.	43	Los Angeles	Denmark	Paralysis of optic nerve.
L. H. Andrews*.	June 20, 1887.	30	Woodland	California.	Mechanical injury.
William Burgoa	May 7, 1886.	50	San Francisco.	Argentine Rep'ic.	Supp'd atrophy of optic nerve.
H. G. Blankmant	November 12, 1888	73	San Francisco.	Holland	Cataract.
Ray Bagnelle	August 3, 1888.	23	Fresno	Illinois	Ophthalmia.
Thomas Bean.	October 16, 1885	60	Alameda	Scotland	Unknown; lost sight in twenty-four hours.
Bernard Carlin	July 12, 1888	57	San Francisco.	Pennsylvania	Cataract.
George B. Carlin†	March 20, 1888.	22	San Francisco.	Pennsylvania	Cataract.
Gordon Campbell	September 22, 1885.	64	Sacramento	Scotland	Inflammation from foreign substance.
John Chambers.	May 2, 1887.	55	Siskiyou	Kentucky	Inflammation.
James Croak.	May 10, 1886.	53	Grass Valley	Ireland	Accident in mine.
Cornelius Cronin	June 2, 1886	54	San José	Ireland	Supposed rheumatic iritis.
Geo. W. Calvert*	August 5, 1888.	20	San Francisco	California	Unknown.
Patrick Donovan	May 18, 1886.	37	San Francisco	Ireland	Traumatism of right eye.
Moses Driscoll.	August 16, 1888	62	San Leandro	Tennessee.	Granulated lids and bad treatment.
John O. Durham	June 1, 1886	16	Alameda	California.	Paralysis of optic nerve.
Geo. E. Dudley\$	November 20, 1886.	34	Roseville	California.	Traumatism.
John Dodson	August 30, 1889	21	Orland	California.	Cataract.
Chas. Dugan	September 30, 1889	49	San Francisco	Denmark	Accident.
M. W. Ford.	March 26, 1888.	41	Independence	New York.	Accident and cold.
John H. Gaffney	January 9, 1886.	32	Stockton	Palmaria	Scarlet fever.
Antoine Good	December 27, 1887.	66	Alameda	Kentucky	Opacity cornea.
James Gordon	February 18, 1887	70	San Francisco.	Scotland	Unknown.
Thos. Henderson	February 7, 1887.	45	Chico	Ohio	Hurt on the head.
Abram E. Hite.	August 31, 1885.	55	Yountville	Kentucky	Struck in eyes with a whip.
Geo. W. Hughes	October 29, 1885	43	Stockton	Iowa	Powder accident.
H. V. Hull \$	June 30, 1886.	19	San José	Massachusetts	Traumatism.
C. S. Hackett*	October 10, 1889	58	San Francisco.	Switzerland	Scarlet fever.
Jacob Kündert	May 10, 1886	51	Modoc County	Illinois	Inflammation.
James Kerley \$	February 5, 1886.	30	Lake County	California	Unknown.
Charles Lerch	June 27, 1886	27	Oakland	Massachusetts	Inflammation.
F. H. Lamb *	September 19, 1889	56	Berkeley	California	Amaurosis.
Jos. Maduro	June 11, 1886	18	Vallejo	New York	Caught cold in eyes.
Clement P. Martin	March 22, 1888.	26	San Francisco.	Vermont.	Ulceration cornea.
Ernest Martin *	November 10, 1888.	26	Sacramento	Canada	Scarlet fever.
Jos. Miller	March 18, 1889	?	San Buenaventura.	Lowa	Born blind.
Peter Miller	February 1, 1886.	44	San Francisco.	California	Unknown—born blind.
John T. Moore.	August 27, 1885.	29			Injury at play when a boy.

Bryan T. Nelson	March 12, 1888	48	Sacramento	New York	Exposure and heavy lifting.
Pelix O'Neil†	March 4, 1886	40	Sacramento	Ireland	Injury to eye.
Henry Parker	May 2, 1887	54	Siskiyou County	Sandwich Islands	Exposure, and bad treatment.
Edward Porter	September 22, 1885	28	Placer County	California	Lifting heavy weights.
Thomas Powers	October 19, 1885	38	San Francisco	Ireland	Powder accident.
Lawrence Riley	May 14, 1886	40	San Francisco	New York	Unknown.
John Sexton	August 27, 1885	42	San Francisco	Ireland	Brain fever.
Cornelius Shea	October 31, 1885	50	San Francisco	Ireland	Fever.
Ed. F. Smith	September 7, 1885	61	Oakland	North Carolina	Glaucoma.
William A. Staggs*	November 1, 1888	23	Napa	California	
M. N. Stanovich	November 10, 1885	44	San Francisco	Austria	Neuralgia.
Jacob Storek	December 19, 1885	33	Butte County	Germany	
Richard Sublett	May 12, 1887	35	San Francisco	California	Affliction of the optic nerve.
Vincent Swollett	December 27, 1887	51	San José	Russia	Unknown.
H. L. Smith‡	June 30, 1886	32	Yreka	Maine	Paralysis of optic nerve.
Patrick Tighe	October 29, 1885	39	San Francisco	Ireland	Accident while working in iron.
H. C. Tuck	October 11, 1889	32	Grantsville	Maine	Accident.
Daniel Weider	August 28, 1885	20	Oakland	Iowa	Congenital cataract.
William P. Wilson	November 1, 1888	64	San Francisco	Sweden	
Maggie Alken	October, 1887	29	Benicia	Michigan	Unknown.
Anna M. Brissell	March 30, 1888	38	Sacramento	New York	Result of cold.
Kate Clement	September 22, 1887	23	San Francisco	California	Through sickness when five days old.
Mary Flynn†	October 29, 1887	25	San Francisco	Quebec	Cataract.
Louise A. Hancy¶	November, 1887	29	Placer County	Michigan	Spinal meningitis.
Pauline Howe	February 7, 1889	29	San Francisco	California	Unknown.
Lizzie Hannah	September 7, 1887	42	San Francisco	Great Britain	An operation.
Emma L. Mast	September 22, 1887	24	San Francisco	California	Unknown.
Darrenda C. Mullaney	November 14, 1889	27	San Francisco	New York	Cold.
Kate O'Rourke	February 7, 1889	51	San Francisco	Ireland	Accident.
Charles W. Thomas*	October 17, 1885	26	San Francisco	Great Britain	Injury to eye by stone.

* Away on leave of absence.

† Died.

‡ Left the Home.

§ Graduated, and in business for himself.

¶ Graduated, and married.

The following is a summary of the expenses of the Home for the year:

MONTHS.	Provisions.	Furniture.	Salaries and Wages.	Inmates' Wages.	Raw Material.	Building and Improvements.	Shop Expenses.
1888.							
December	\$481 76	\$2 50	\$676 65	\$275 95	\$286 05	-----	\$34 44
1889.							
January	517 02	28 35	676 65	337 53	738 62	-----	35 51
February	847 30	9 70	676 65	288 46	674 47	-----	82 05
March	601 24	11 94	680 65	382 71	2,441 37	-----	37 05
April	565 78	300 00	809 07	408 42	3,664 72	\$205 20	24 95
May	634 99	2 50	803 15	441 36	12 50	11 90	35 65
June	609 69	3 90	749 65	437 47	93 97	1,568 50	42 80
July	571 89	46 46	742 65	447 74	537 87	964 20	35 90
August	518 87	285 72	737 65	433 66	125 89	59 10	29 60
September	497 00	21 75	748 54	367 07	97 60	2,661 10	41 55
October	550 77	-----	737 65	497 00	510 32	22 81	122 80
November	496 48	6 96	737 65	531 15	3,736 54	7 64	48 30
Totals	\$6,892 79	\$719 78	\$8,776 61	\$4,848 52	\$12,919 92	\$5,500 45	\$570 60

MONTHS.	Insurance.	Medicine.	Machinery.	Washing.	Satisfaction of Mortgage.	Miscellaneous.	Total.
1888.							
December	\$45 00	\$121 20	\$20 00	\$75 00	-----	\$80 40	\$2,098 95
1889.							
January	-----	-----	-----	-----	-----	46 87	2,380 55
February	-----	-----	-----	150 00	-----	49 95	2,778 58
March	-----	121 15	-----	75 00	-----	43 98	4,395 09
April	-----	-----	33 91	75 00	\$668 40	43 32	6,798 77
May	-----	-----	295 60	75 00	-----	50 15	2,362 80
June	45 00	130 25	-----	75 00	-----	70 80	3,827 03
July	-----	1 75	-----	75 00	-----	72 80	3,496 26
August	24 00	-----	-----	75 00	-----	71 85	2,361 34
September	-----	119 70	-----	75 00	-----	181 60	4,810 91
October	-----	-----	-----	75 00	-----	47 10	2,563 45
November	-----	48 35	33 03	75 00	-----	49 50	5,770 60
Totals	\$114 00	\$542 40	\$382 54	\$900 00	\$668 40	\$808 32	\$43,644 33

Following is the monthly returns from the sale of manufactured goods during the year:

December, 1888	\$686 45
January, 1889	2,083 25
February, 1889	829 10
March, 1889	1,040 25
April, 1889	1,042 15
May, 1889	1,083 50
June, 1889	1,305 90
July, 1889	1,102 00
August, 1889	942 95
September, 1889	1,099 85
October, 1889	1,349 65
November, 1889	1,163 50
Total	\$13,728 55

These returns are forwarded monthly to the State Treasurer, and placed by him in the fund of the Home, to be drawn against by the Board, thus constituting a revolving fund for the Home.

As above given, the amount drawn from the several funds of the Home during the year was \$43,644 33, and in addition to this amount the following credits of the Home were realized upon and expended during the year:

Raw material on hand December 1, 1888.....	\$1,530 60
Manufactured stock on hand December 1, 1888.....	1,337 15
Bills receivable December 1, 1888.....	1,796 90
Total.....	\$4,664 65

Adding to which the above amount of \$43,644 33 we get \$48,308 98, which is the total gross expenditure of the Home for the year.

From this aggregate there should be deducted the following credits:

Amount returned to State Treasurer.....	\$13,728 55
Raw material on hand December 1, 1889.....	4,101 99
Manufactured stock on hand December 1, 1889.....	2,417 62
Bills receivable December 1, 1889.....	3,166 76
Making a total of.....	\$23,414 92

Deducting this total from \$48,308 98, the amount of the gross expenditure, we get \$24,894 06, which is the total net expenditure of the Home for the year.

Of this sum there was expended:

For building and permanent improvements.....	\$5,500 45
For machinery.....	382 54
For furniture.....	719 78
For cancellation of mortgage on property.....	668 40
	\$7,271 17

Which sum being deducted would leave the running expenses of the Home at \$17,622 89.

The last Legislature appropriated \$15,500 for building purposes: \$10,500 for an additional dormitory for the male inmates; \$2,500 for a residence for the Superintendent, and \$2,500 for the enlargement of the dining-room and shops. The Superintendent's residence has been constructed at a cost of \$2,485 35, the shops and dining-room have been enlarged to the extent of the amount appropriated, and the contract for the erection of the new dormitory will be awarded at the next regular meeting of the Board. As there has been some complaint in regard to the delay in erecting the dormitory, the cause of it might as well be here explained. As soon as the building of the Superintendent's residence had been completed, the work on the dining-room and shop got under way, the Board had the plans and specifications for the dormitory drawn up and forwarded to the State Board of Building at Sacramento for approval, as required by law. The plans in due time were approved and placed in the hands of Wells, Fargo & Co. to be returned; they were mislaid or lost by the company, and as the Board had not been notified that they had been approved and returned, considerable time elapsed before an investigation and search was made. Finally, upon being notified by the company that the plans had been received by them and lost and that it was impossible to find them, the Board had new ones drawn up and sent to Sacramento for approval. These were returned approved on December fourth, and immediately upon their receipt the Board had the notices required by law inserted in newspapers, calling for proposals to be opened at the regular meeting in January, 1890.

The new dormitory will accommodate nearly fifty more men. When completed the institution will be prepared to maintain about one hundred and fifty inmates, with manufacturing facilities to utilize their labor. It is believed that this will be near the average of the dependent blind in California. Should the fact be otherwise and a larger number appear, the grounds of the institution belonging to the State are ample for further

enlargement of its facilities. The number above stated can be cared for, taught the blind handicrafts, and maintained without any appreciable increase in the administrative expense, and when that maximum is reached the cost per capita will be greatly decreased.

The industries carried on at the Home are broom-making, chair-caning, and hair-picking; match-making will be introduced during the coming year. Broom-making is the chief industry and it seems highly probable that it will continue to remain so; it is a trade to which the blind are peculiarly adapted, the product is one for which there is unfailing and universal demand, and moreover the business has long been associated in the public mind with the accomplishments and achievements of the blind, so that naturally a way of easy ingress has been opened into thousands of households for the "blind man's broom." Great pride is felt at the Home for the output of the cane-seating department; this work is done by the blind women with great neatness and excellence and deserves the highest commendation. The manufactures find a quite ready sale, and in some qualities the market is so appreciative that it is often difficult to keep up stock. This difficulty will be less likely to occur when an increase in the number of inmates yields its natural increase in the percentage of first class mechanics.

The Board takes occasion to again recommend greater flexibility in the law in regard to the manufacturing department of the Home. It almost invariably occurs that advertisements for bids for broomcorn and other raw materials to be opened on a certain day causes a fictitious advance in prices, the stock being usually held by other manufacturers who are the competitors of the Home in the market for the finished articles. Experience has proved that in this respect the Superintendent, in conjunction with the Board, should be permitted to take advantage of the open market and buy in lots at first hands, like other manufacturers. As there is always a margin of productive capacity against the blind workman and in favor of those who have sight, it is not possible that this or any similar institution shall be made self-supporting. The blind apprentice of necessity wastes more material than one with sight, and, after he acquired the journeyman's skill or the dexterity of the master workman, he requires more time to produce an article of commercial value equal to that made by the man with eyesight. The market is not sentimental. It buys to satisfy its own necessities, unmindful of those of the maker of the goods, and refuses to consider the blindness of the maker a good reason for paying first class prices for second class wares. For these reasons it is very desirable that the law should be sufficiently flexible to permit the closest economy in the purchase of raw material. The Home should be able to take advantage of the market and of all the usual commercial discounts for spot cash.

The Directors desire to acknowledge the obligation due to the able Superintendent, himself blind from childhood, and in his alertness, business faculty, and executive talents are example and encouragement to all who suffer the capital loss of vision.

Compliments are also due to the clerk, teacher, and foreman, whose interest in the success of the Home and welfare of its inmates is not measured by their limited compensation. The skillful physician of the institution is able to report its most excellent sanitary condition, which we are aware is largely referable to his daily attentions and advice.

The Board cannot forget, however, that finally the success of the Home depends upon the disposition and efforts of its inmates themselves, and is happy to acknowledge their cheerful maintenance of discipline, their

industry, temperance, and good order. The Directors hope as the institution develops and offers its shelter to a greater number, that amongst the inmates will be found material for brass and string bands, that music may enliven the hours of recreation, and further cheer those who, being denied the pleasures of vision, transfer its keenness of appreciation to the other senses.

JNO. P. IRISH,
President of the Board of Directors.

Subscribed and sworn to before me this thirty-first day of December,
A. D. 1889.

CHAS. D. WHEAT,
Notary Public.

[SEAL.]

SIXTH ANNUAL REPORT

OF THE

BOARD OF DIRECTORS

OF THE

Industrial Home of Mechanical Trades for the Adult Blind

FOR THE

YEAR ENDING 1890.



SACRAMENTO:

STATE OFFICE, : : : : : J. D. YOUNG, SUPT. STATE PRINTING.

1890.

REPORT.

To the Hon. R. W. WATERMAN, Governor of the State of California:

In pursuance of law, the Board of Directors of the Industrial Home of Mechanical Trades for the Adult Blind, respectfully submits to you its sixth annual report of the management and condition of the Home.

There has been no change in the membership of the Board of Directors during the year.

The officers of the Home are as follows:

President of the Board of Directors.....	John P. Irish.
Vice-President of the Board.....	Warren Olney.
Secretary and Treasurer.....	L. A. Redman.
Physician of the Home.....	Andrew Fine, M.D.
Superintendent of the Home.....	Jos. Sanders.

The salary of the Superintendent is \$2,100 per annum; of the Physician \$1,200 per annum, and of the Secretary \$500 per annum. The employés of the Home and their rates of compensation are as follows:

Foreman of the workshop, per month.....	\$50 00
Clerk.....	40 00
Assistant to the foreman.....	16 00
Teacher in Female Department.....	25 00
Watchman and laborer.....	50 00
Gardener.....	30 00
Drayman.....	25 00
Janitor.....	40 00
First cook.....	35 00
Second cook.....	30 00
Chambermaid.....	25 00
Three waitresses at \$20 per month each.....	60 00
Total.....	\$426 00

The following are the names of the inmates present at the Home during the year, December, 1889, to December, 1890:

NAME.	Date of Admission.	Age when Admitted.	Former Residence.	Native of.	Cause of Blindness.
Fred V. Anderson	July 18, 1889	43	Los Angeles	Denmark	Paralysis of optic nerve.
Maggie Aitken	October 1, 1887	68	Benicia	Michigan	Unknown.
Daniel D. Ahrens	June 18, 1890	29	Weaverville	Germany	Amiaurosis.
Wm. Burgoa	May 7, 1886	50	San Francisco	Argentine Repub.	Atrophy of optic nerve.
Ray Bagnelle	August 3, 1888	23	Fresno	Illinois	Ophthalmia.
D. Bellisle	January 2, 1888	42	San Francisco	Canada	Inflammation.
Anna M. Brissell	March 30, 1888	38	Sacramento	New York	Result of cold.
Bernard Carlin	July 12, 1888	37	San Francisco	Pennsylvania	Unknown.
Gordon Campbell	September 22, 1885	64	Sacramento	Scotland	Inflammation from foreign substance.
John Chambers	May 2, 1887	53	Siskiyou	Kentucky	Inflammation.
James Croke	May 10, 1886	55	Grass Valley	Ireland	Accident in mine.
Cornelius Cronin	June 2, 1886	54	San José	Ireland	Rheumatic iritis.
Michael Cogan	March 23, 1890	29	San Andreas	California	Accident.
John E. Coffey	December 1, 1890	20	San Francisco	California	Accident.
Kate Clement	September 22, 1887	23	San Francisco	California	Through sickness when five days old.
Isabelle Cienega	February 9, 1890	43	San Francisco	Mexico	Trachomatism.
Patrick Donovan	May 18, 1886	37	San Leandro	Ireland	Granulated lids and bad treatment.
Moses Driscoll	August 16, 1888	62	San Francisco	Tennessee	Paralysis of optic nerve.
John O. Durlam	June 1, 1886	16	Alameda	California	Accident.
Charles Dugan	September 30, 1889	49	San Francisco	Denmark	Cataract.
John T. Durlson	August 30, 1889	22	Orland	California	Accident.
B. S. Daniels	June 24, 1890	60	San Mateo	Pennsylvania	Born blind.
James Ely	August 14, 1890	18	Oakland	California	Accident and cold.
M. W. Ford	March 26, 1888	41	Independence	New York	Scarlet fever.
John H. Gaffney	January 9, 1886	32	Stockton	California	Opacity cornea.
Anoine Good	December 27, 1887	66	San Francisco	Dalmatia	Unknown.
James Gordon	February 18, 1887	70	Alameda	Kentucky	Hurt on the head.
Thomas Henderson	February 7, 1887	45	San Francisco	Scotland	Struck in eyes with a whip.
Abram E. Hite	August 31, 1885	55	Chico	Ohio	Powder accident.
George W. Hughes	October 24, 1885	43	Yountville	Kentucky	Scarlet fever.
C. S. Hackett*	October 10, 1889	58	San José	Massachusetts	(gunshot.)
Samuel L. Hoover	June 15, 1890	25	Marysville	Illinois	Unknown.
Pauline Howe	February 2, 1889	29	San Francisco	California	An operation.
Lizzie Hannah	September 7, 1888	42	San Francisco	England	Unknown.
James Kurley	March 4, 1886	28	Modoc County	Illinois	Unknown.
Annie Fennell	September 22, 1887	30	San Francisco	New York	Inflammation.
Jacob Kundert†	May 10, 1886	31	San Francisco	Switzerland	Born blind.
Frank King	June 13, 1890	17	Monterey	Massachusetts	Accident.
J. C. Kuekenmeister	June 13, 1890	50	Eureka	Germany	Accident.

Daniel Krafky	June 6, 1890	Tulare	Minnesota	Accident.
Charles Lureh	June 27, 1886	Lake County	California	Inflammation.
F. H. Lamb*	September 19, 1889	Oakland	Massachusetts	Amaurosis.
Robert Lowry*	July 15, 1890	San Francisco	Canada	Accident.
Joseph Maduro	June 11, 1886	Berkeley	California	Cold in eyes.
C. P. Martin	March 22, 1888	Vallejo	New York	Ulceration cornea.
Earnest Martin	November 10, 1888	San Francisco	Vermont	Scarlet fever.
Joseph Miller	March 18, 1889	Sacramento	Canada	Born blind.
Peter Miller	February 1, 1886	San Buenaventura	Iowa	Born blind.
John T. Moore	August 27, 1885	San Francisco	California	Injured when a boy.
Austin McLane	August 14, 1890	Butte County	California	Opacity cornea.
Emma L. Mast	September 22, 1887	San Francisco	California	Unknown.
D. C. Mullaney	November 14, 1889	San Francisco	New York	Cold in eyes.
B. T. Nelson	March 12, 1888	Sacramento	New York	Exposure and heavy lifting.
Catherine O'Rourke	February 7, 1889	San Francisco	Ireland	Accident.
Henry Parker	May 22, 1887	Siskiyou County	Sandwich Islands	Exposure and bad treatment.
Edward Porter	September 22, 1885	Placer County	California	Lifting heavy weights.
Thomas Powers	October 19, 1885	San Francisco	Ireland	Powder accident.
Lawrence Riley	May 14, 1886	San Francisco	New York	Unknown.
Joseph Riley	June 19, 1890	Oroville	Ireland	Opacity cornea.
C. L. Robinson†	June 23, 1890	San Francisco	Ireland	Cataract.
Jennie Root	October 21, 1890	San José	California	Amaurosis.
John Sexton	August 27, 1885	San Francisco	Ireland	Brain fever.
Cornelius Shea	October 31, 1885	San Francisco	Ireland	Fever.
E. F. Smith	September 7, 1885	Oakland	North Carolina	Glaucoma.
W. A. Staggs	November 1, 1888	Napa	California	Unknown.
M. N. Stanovich	November 10, 1885	San Francisco	Austria	Neuralgia.
Jacob Storck	December 19, 1885	Butte County	Germany	Unknown.
Richard Sublett	May 12, 1887	San Francisco	California	Injury to optic nerve.
V. Swetellis	December 27, 1887	San José	Russia	Unknown.
A. Schreiber	January 9, 1890	San Francisco	Prussia	Accident.
Helena Schau	May 28, 1890	San Francisco	Germany	Born blind.
Patrick Tighe	October 29, 1885	San Francisco	Ireland	Accident while working in iron.
H. C. Tuck	October 11, 1889	Graniteville	Maine	Accident.
Mary Tenney	January 21, 1890	Oakland	New York	Cold and measles.
Daniel Weider	August 28, 1885	Oakland	Iowa	Unknown.
Wm. P. Wilson	November 1, 1888	San Francisco	Sweden	Unknown.

* On leave of absence.

† Left the Home during the year.

‡ Died during the year.

The following is a summary of the expenditures of the Home during the year:

MONTHS.	Pro-visions.	Furni-ture.	Salaries and Wages.	Inmates' Wages.	Raw Material.	Building and Improve-ments.	Shop Expenses.	Insur-ance.	Medicine.	Machin-ery.	Washing.	Miscel-laneous.	Total.
1889—December	\$451 58	\$200 67	\$737 65	\$407 06	\$4,128 18	\$1,132 31	\$33 65	-----	\$63 00	\$5 63	\$75 00	\$34 60	\$7,269 33
1890—January	776 82	45 53	763 15	456 44	2,187 99	139 47	46 30	\$226 10	-----	-----	-----	58 96	4,700 76
February	477 66	26 11	742 31	519 56	7 79	2,700 00	55 33	-----	-----	-----	150 00	70 35	4,749 11
March	763 61	15 75	728 65	622 51	69 00	-----	67 50	-----	151 65	5 75	75 00	57 80	2,397 22
April	604 25	4 68	736 65	588 82	753 66	3,593 30	60 80	-----	-----	-----	-----	60 60	6,402 76
May	449 41	17 90	733 65	539 71	1,891 14	590 25	48 20	-----	57 00	-----	75 00	84 20	4,506 46
June	774 25	440 15	732 65	646 08	775 58	1,363 56	51 40	125 00	99 35	-----	150 00	53 66	5,211 68
July	365 15	20 30	750 32	511 02	115 48	-----	44 45	-----	-----	118 50	-----	29 50	1,954 72
August	693 64	37 50	747 65	590 78	309 87	1,391 84	43 45	-----	-----	5 50	-----	20 45	3,840 68
September	700 68	72 50	747 65	258 91	793 70	30 79	40 40	-----	62 50	-----	160 00	42 60	2,909 73
October	758 09	1 45	747 65	574 00	584 81	373 92	54 00	-----	76 60	9 45	170 00	31 95	3,381 92
November	436 29	51 00	750 15	626 15	3,551 24	28 95	45 27	-----	-----	27 56	85 00	34 50	5,636 11
Totals	\$7,251 43	\$983 54	\$8,938 13	\$6,381 04	\$15,168 44	\$11,344 39	\$590 75	\$351 10	\$510 10	\$172 39	\$940 00	\$579 17	\$53,160 48

Following are the monthly returns from the sale of manufactured goods during the year:

1889—December	\$1,572 85
1890—January	1,429 90
February	1,572 80
March	1,505 35
April	1,977 85
May	1,786 00
June	2,627 80
July	1,335 70
August	1,467 50
September	1,692 15
October	1,258 15
November	1,247 25
Total	\$19,473 30

These returns are forwarded monthly to the State Treasurer and placed by him in the fund of the Home, where they are drawn against by the Board, thus constituting a revolving fund for the Home. As shown by the schedule given above, the total amount drawn from the several funds of the Home and expended by the Board, is the sum of \$53,160 48.

As against this sum there exists the following credits in favor of the Home:

Amount returned to State Treasurer	\$19,473 30
Raw material now on hand	4,161 18
Manufactured stock now on hand	2,392 64
Bills receivable	3,984 79
Total	\$30,011 91

Deducting these amounts from the above sum of \$53,160 48, we get \$23,148 51.

To this should be added the following credits on hand a year ago, which have been realized upon and form a part of the amount returned to the State Treasurer during the year:

Raw material on hand December 1, 1889	\$4,101 99
Manufactured stock on hand December 1, 1889	2,417 62
Bills receivable December 1, 1889	3,166 76
	\$9,586 37
	23,148 57
Total	\$32,734 94

Which is the total net expenditure of the Home during the year.

Of this sum there was expended:

For building and permanent improvements	\$11,344 39
For machinery	172 39
For furniture	933 54
Total	\$12,450 32

Which sum being deducted from the above sum of \$32,734 94, leaves the actual running expenses of the Home for the year, \$20,284 62.

The gross earnings of the inmates for the year were \$256 22 per capita. Their wages per capita were \$83 96.

The net cost per capita after deducting all credits was \$266 90.

It must be remembered, however, that these averages do not represent the earnings or the wages of the active working force of inmates. The more the asylum feature of the Home gains upon its industrial feature,

the hospital on the workshop, the greater will be the disproportion between the cost of support per capita and the earnings turned into the Treasury and the wages per capita.

The Home has begun to show a gain of the workshop on the hospital. At the time of its establishment the streets were full of adult blind, sightless for many years, nearly superannuated, and much broken physically and mentally through lack of occupation. Many such were in the public almshouses, or divided their time between semi-beggary and those institutions, all the time a charge upon the public.

It was natural that in its beginning the Home should catch a percentage of this class which could do but little service in the workshop, but raised the general cost of support. It is natural also, that the foreclosure of time will reduce the percentage of this class, which is wholly or partially non-contributive to the industrial returns of the institution, and the percentage of those qualified for constant service in the workshop will continue its present increase. If it be possible for every inmate to become a steady contributive worker, the cost of support per capita will not be increased, but the earnings and wages per capita will gain largely. When every one does work there will be left between the cost of support and the earnings of the Home only the impassable margin between the productive power of blind mechanics and those of full faculties. This margin will be narrowed by skill and by economy of superintendency, but can never be obliterated. Meantime, however, the Revolving Fund to which the inmates have this year contributed the large sum of \$19,473 30, will go on increasing until it will constitute a permanent endowment approximately equal to the support of the institution.

The Directors call the attention of the State to the remarkable fact that with all the decrepit and non-working and apprentice classes in the Home, it is able, notwithstanding, to pay into the Treasury the sum of \$256 22 per capita, by reason of its most economical domestic administration and its fine commercial management. This fact derives its chief significance from the blindness of the efficient Superintendent, Mr. Joseph Sanders. The Directors were able, by securing his services, to put the Home in line with the most successful of similar institutions elsewhere, which have realized their highest expectations only when their discipline and organization, being for the blind, were administered by the blind.

The Directors are pleased to note that many of the inmates, out of their wages, have not only clothed themselves comfortably, but have put by savings bank deposits, which, by a few years' accumulation, will lift them above the necessity of public benevolence. This is the purpose for which the Home was created by the State, and it is pleasant to know that while the support of all the inmates, active and non-active, costs less per capita than if they were in the Almshouse, at the same time they are being equipped for self-support and future independence of public or private charity.

The new dormitory, as will be seen by the financial report, was built for less than the amount appropriated for that purpose. The enlargement of the shop, storage, dining, and other needed rooms, permitted by the intelligent liberality of the State, has been effected. By construction of a cottage for the Superintendent, the large central building has been devoted entirely to administrative purposes and the separate use of the

blind women, whose industry, appreciation, and assistance to the institution it is a pleasure to notice and commend.

The Directors find an increasing pressure for admission of blind paralytics, epileptics, total cripples, and others who, in addition to blindness, are otherwise physically incapable or mentally imbecile, and require constant attention in nursing and medication. Of course the reception and maintenance of such is without the scope of this institution, and would so overload it as to obscure and perhaps destroy its valued and profitable industrial feature. The pressure mentioned may grow to such magnitude as to indicate the need of a separate foundation as a public or private benevolence, in the nature of a hospital, for those who add to blindness other physical or mental defects which make it impossible for them to care for themselves at all.

The Board renews its expression of approval of the tried and experienced staff of officers and employés of the Home who have made its interests theirs, and have administered its affairs with fidelity, economy, and devotion to its benevolent and praiseworthy purpose.

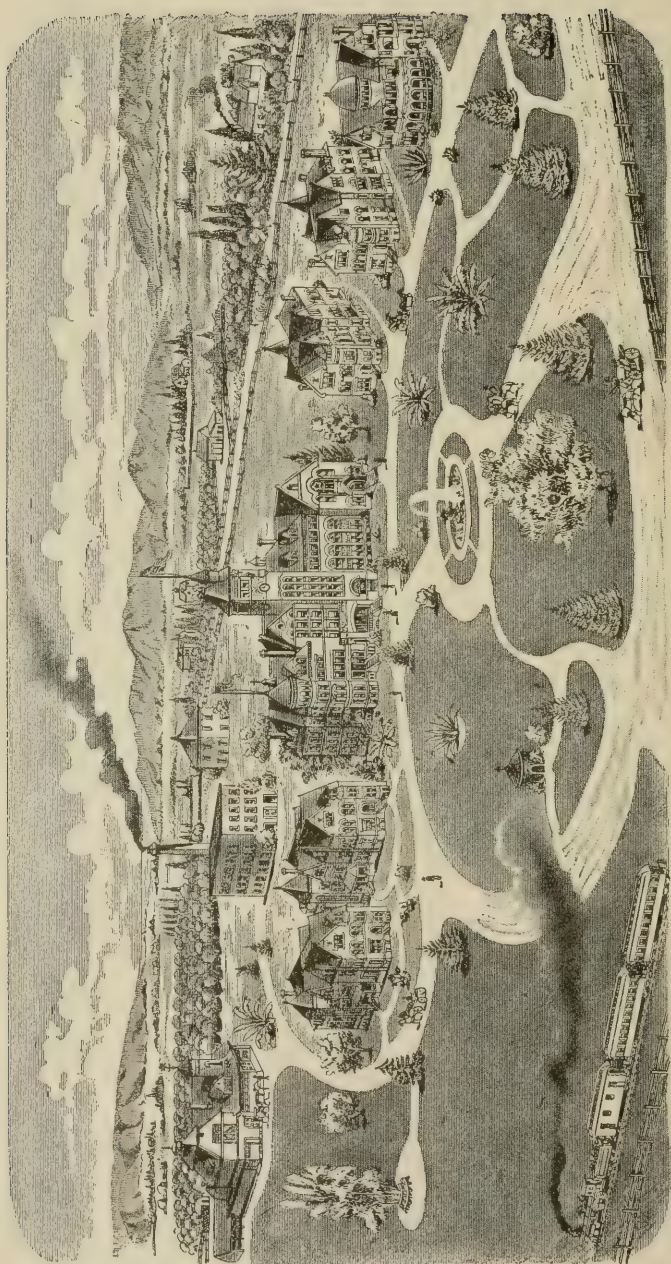
JOHN P. IRISH,
President of the Board of Directors.

Subscribed and sworn to before me this twenty-sixth day of December,
A. D. 1890.

[SEAL.]

CHAS. D. WHEAT,
Notary Public.





LOS ANGELES LITHOGRAPHIC CO.

J. S. YOUNG & COMPANY.

REPORT

OF

BOARD OF TRUSTEES

OF THE

REFORM SCHOOL FOR JUVENILE OFFENDERS,

LOCATED AT WHITTIER, LOS ANGELES COUNTY,

FOR THE

TWENTY MONTHS ENDING NOVEMBER 30, 1890.



SACRAMENTO:

STATE OFFICE, : : : : : J. D. YOUNG, SUPT. STATE PRINTING.
1890.

REPORT.

To his Excellency R. W. WATERMAN, Governor of California:

SIR: The Board of Trustees appointed by you under Act of Assembly and Senate, approved March 11, 1889, to establish a State Reform School for Juvenile Offenders, and to make an appropriation therefor, beg to make the following as their first report: They have accepted a donation of forty acres of land on the Southern Pacific Railroad, adjoining the Quaker village of Whittier, thirteen miles from the city of Los Angeles. They have also bonded, subject to the action of the Legislature, one hundred and twenty acres of land adjacent to the above mentioned forty, at \$200 per acre. This additional land is needed, as it is our desire to have a large proportion of the boys in this school thoroughly taught fruit growing, vegetable gardening, stock raising, dairying, and the care of poultry, so that while some of the pupils will be made skillful in each of these useful vocations, they will at the same time be producing much of the food necessary for the school.

Immediately after the deed of the forty acres of land was filed with the Secretary of State, the Board of Trustees employed a gardener and laborers and had the grounds judiciously laid out and planted with fruit and shade trees, and a portion of it sowed in alfalfa and barley. Two thousand two hundred and forty-two trees are now making a vigorous growth, besides a large number of flowering shrubs and ornamental plants. We have in the barn forty tons of hay from the barley and alfalfa, and the State's stock has excellent pasture.

There have been great changes in the last twenty years in the buildings for and control of reform schools, and we deemed it necessary to send a committee, a member of which was a competent architect, to visit the most noted eastern institutions of this character. This committee reported in favor of one central structure to be known as the Administration Building, to be surrounded by "cottages" that would each accommodate a family of fifty boys; each family to be in charge of a man and his wife and a teacher. These families to be composed as near as possible of pupils of similar age and similar culpability or innocence.

Plans were carefully prepared that met with the approval of the Trustees, and which were then submitted to you, and after a careful examination received your indorsement.

Building was then immediately commenced, and on the twelfth of February, in the presence of twelve thousand people, the corner-stone of the Administration Building was laid under your auspices, with the impressive ceremonies conducted by the Grand Lodge of Free and Accepted Masons of California. We now beg to report the following buildings completed:

First—A large substantial barn, cow sheds, corral, and poultry sheds, and including rooms, hot and cold water, and all conveniences for the residence of the farmer. The whole of ample size for the institution when it assumes active work.

Second—Conservatory for propagating trees and plants for the orchard and garden, with room for garden tools and implements.

Third—Residence of gardener. A comfortable frame building.

Fourth—Three-story brick power house and trades building. In the first story of this building is a room for forges for teaching blacksmithing, a room for engines and dynamos for supplying heat and light for all the buildings, and a room for storage of fuel. On the second floor are rooms for carpenter shop and paint shop, while on the third floor will be a printing establishment where boys who appear to be adapted to the work can become printers and publish a school paper. There will also be on this floor a shoe shop, where the shoes for the school will be made by the boys themselves, under the superintendence of a skilled workman.

Fifth—A girls' cottage of ten rooms. This is entirely isolated from the other buildings, as the bill provides for the "absolute exclusion of all communication of any kind or character between the sexes."

Sixth—The Administration Building, four stories and basement, of brick and stone. This is a beautiful substantial structure two hundred and four feet long and one hundred and six feet deep, and faces the east.

The basement is well lighted and has a cement floor. In the north wing is a wash-room thirty-six feet six inches wide and fifty-one feet eight inches long. Here are long basins over which the boys wash their hands and faces. Each boy washes in a stream of running water from a separate hydrant and uses a separate towel. This is done to avoid the contagion liable to result from washing in the same water with, or using the same towels used by boys having skin diseases or sore eyes. There are in this room one hundred and fifty of these hydrants, so that one hundred and fifty boys can wash at once. There is also in this room a large water-closet. Adjoining is a room for plunge bath and shower bath. This room is thirty-six feet wide by forty-nine feet long, and also contains a large number of wire lockers, where the boys can leave their ordinary clothing when they change for Sundays or holidays. In the central part of the basement is a play-room forty-eight feet six inches by thirty-six feet nine inches, to be used in inclement weather. There is a milk-room twenty-six feet by thirty feet, and a butter and ice-room twenty-two feet by eighteen feet, and a meat-room twenty-six feet by ten feet. In the south wing of the basement is a boys' dining-room forty-five feet eleven inches by forty-two feet, a bakery and bread-room forty-seven feet six inches by twenty-two feet, and a kitchen, including range, pantry, etc., twenty-three feet one inch by thirty-seven feet four inches.

First floor consists of the chapel one hundred feet by forty feet, capable of seating five hundred pupils. It is expected that this Administration Building will be surrounded by "cottages" containing families of fifty each, and that all will assemble in this chapel for literary and musical exercises and moral instruction. In the central portion of the first floor is a school-room thirty-five feet six inches by thirty-two feet ten inches, with adjoining hat-room; pharmacy, twenty-four feet by fourteen feet eight inches; reception-room, twenty-two feet six inches by eighteen feet six inches; office of clerk and bookkeeper, nineteen feet eight inches by nineteen feet two inches, and halls twelve feet eight inches wide. In the south wing of the first floor are employes' sitting-room, fourteen feet eight inches by sixteen feet eight inches; employes'

dining-room, twenty-five feet by fourteen feet eight inches; four rooms for residence of Superintendent, including bath-room, water-closets, and other closets, and a kitchen for employés and Superintendent and family, eighteen feet by twenty-one feet nine inches. There are six entrances to the first floor, with suitable steps and balconies.

In the north wing of the second floor is the gallery of the chapel. In the south wing and center of the second floor is a school-room, thirty-three feet two inches by thirty-five feet; Superintendent's office, twenty-four feet eight inches by twenty-eight feet; seven bed-rooms for employés; Trustees' room, eighteen feet six inches by twenty-two feet six inches; and a tailor shop, twenty-eight feet ten inches by fifty feet, where a class of boys will be taught tailoring, and will make and repair the clothing for all of the pupils in the school.

On the third floor is a dormitory fifty feet ten inches by thirty-six feet six inches, containing an individual locker for each boy, where he can keep his clothing; a reading-room and library, thirty-nine feet one inch by thirty-five feet ten inches; a dormitory, thirty-three feet by fifty feet, and five bed-rooms for employés.

On the fourth floor is a dormitory fifty-two feet by thirty-eight feet; three rooms to be used for sick pupils; one bed-room for employés; one dormitory, forty feet by forty-five feet, and a storage-room for bedding, etc., forty-eight feet by twenty-four feet; three spacious staircases and elevator lead from the basement to the fourth floor. On each floor are wide halls and a suitable number of bath-rooms, water-closets, and clothes-closets.

The attic will be fitted up for music and band-room, as a suitable bandmaster will be secured and a band organized, composed entirely of the boys of the school. One of the teachers must have sufficient knowledge in military tactics to drill the boys in ordinary maneuvers.

In the sixth story of the tower are hot and cold water tanks.

In the seventh story of the tower is a room to be used as an observatory.

The eighth story of the tower is for the clock.

On each floor are fire hydrants and hose.

We now have this school almost ready for students, and we are glad to say that in every step we have had your assistance and counsel. It has been through your interest and encouragement in this endeavor to save the youth of this land that we have been enabled to erect these buildings in such a comparatively short time.

There are two amendments to the present Act that we hope to have enacted by the ensuing Legislature. First, to change the name of "Reform School for Juvenile Offenders" to "Whittier School of Trades and Agriculture," thus removing the stigma of the word "reform" from the pupils. It will be a school of trades and agriculture, and such a name well describes its work. In giving this name this State will be paying a graceful tribute to the aged Quaker poet, now eighty-three years old, who has ever been the advocate of industrious habits, freedom, and education. Rhode Island, Ohio, and a number of other States have dropped the word "reform" from the name of their institutions of this character.

The second amendment is to provide that all the youths sent to this school be so committed until they are twenty-one years of age, unless, in the judgment of the Trustees, they are sooner reformed. We believe

that probably the greatest work of this institution will be to find out what the pupils are best adapted to, teach them to do it, and whenever possible find them homes in good Christian families where their education will be properly continued under home influences. When sending a boy away from the school under these circumstances we desire not to discharge him, but only to parole him. If he does well and is well treated in his new home he will be left there, but we desire him and the one who has agreed to educate him to know that should either party fail to do his duty we could recall the boy to the school without process of law. We hope to be given the power to act as guardian to these wayward youths until they become of age, and try in this manner to place them on the stage of manhood well equipped for the great drama of life.

After a careful estimate of the cost of maintaining the school for the two and a half fiscal years ending June 30, 1893, we find that to clothe, board, and teach three hundred pupils for that length of time, including all salaries, will cost \$162,750. One half of this is to be paid by the counties from which the boys are sent. We therefore ask the Legislature for an appropriation for maintenance of \$81,383.

It will require for water, pipe-lines, and the construction of reservoir, and piping the same to buildings and over the land, an outlay of \$15,000. There is a water right, running with the land upon which these buildings are erected, belonging to the State from the San Gabriel River.

To purchase electric light plant and engines to furnish power for all shops, for elevators, for electric light, for steam-heating the Administration Building, and necessary machinery and attachments, will cost \$15,500. Furnishing and thoroughly equipping Administration Building and Girls' Cottage will cost \$20,000. To fitting up Industrial Building with machinery and tools for systematic instruction in the theory and practice of the mechanic arts, such as carpentry, blacksmithing, lathe and pattern work, and printing, will cost \$5,000.

The present buildings will not accommodate the pupils already waiting to enter, and there will be immediately demanded three additional brick family buildings that will each accommodate fifty pupils. To erect and equip these buildings will cost \$100,000. For elevators we need an appropriation of \$5,000. There is also needed for the purchase of one hundred and twenty acres of bonded land an appropriation of \$24,000. For fruit trees, shrubs, plants, etc., we need an appropriation of \$3,000. For the purchase of vehicles, live stock, and agricultural implements, an appropriation is needed of \$5,000.

The following is our financial statement for the twenty months of our service as Trustees:

STATEMENT, NOVEMBER 24, 1890.

Appropriation by State of California	\$200,000 00
Moneys received and disbursed by George Mason,	
Treasurer, as follows:	
For salaries	\$11,038 44
For office expenses	1,265 31
For live stock and stable	2,183 28
For tools and implements	478 32
For garden and grounds	1,483 30
For Trustees' expenses	4,269 45
For material (lumber, water pipe, etc.)	2,631 24
For labor	8,727 59
For architect's fees	4,128 35
For water account (boring well)	484 40
For freight and express	72 85
For groceries, provisions, etc.	303 96

For fuel	\$55 65	
For contract for barn, sheds, etc., with A. H. Don- necken	13,900 00	
For contract Girls' Cottage, with J. M. Skinner and A. F. Mackay	4,000 00	
For Girls' Cottage (furniture)	743 66	
For legal services	550 00	
For insurance	253 05	
For contract for Administration and Factory Buildings, with J. M. Skinner and A. F. Mackay (eight payments)	87,000 00	
For Administration Building (extra work)	1,208 41	
For miscellaneous	4,524 86	
		\$149,302 12
Due R. B. Young, architect, when buildings are accepted by Trus- tees	3,233 35	
Due Skinner & Mackay for erection of Administration and Factory Buildings, ninth and tenth payments	42,334 00	
Balance on hand	5,130 53	
		\$200,000 00 \$200,000 00

The further we go with this work the more its magnitude and importance is revealed to us. The State of California has wisely paid millions and millions of dollars for building, equipment, and maintenance of the State University and Normal Schools, where the fortunate youth of our commonwealth are educated; but for the unfortunate, those who through incapacity or death of parents, or through abject poverty and through hereditary criminal tendencies are thrown upon our streets before they have reached years of discretion, California has done absolutely nothing. Millions of dollars are spent annually by the State, caring for these unfortunates after they have become adults and entered our penitentiaries and insane asylums; but nothing has been done in this State toward taking these youth who have started on the broad road to ruin, teaching them useful trades, habits of industry, and depriving them of the baleful effect of opium, tobacco, alcohol, and impure associations. The result is that California has become notorious for her hoodlums, her insane, and her criminals. We ask you, and through you the Legislature, to hold up our hands; support us in this work we are about inaugurating.

The ideal reform school takes these boys, gives them a good common school education; gives them proper, healthful recreation; studies each one; gives each individual the work or trade he seems best adapted for; makes him skillful in that work; implants hope, self-respect, and ambition in his heart; and, when he goes out from the school still watches him, aids him, and encourages him. This is no experiment we are asking you to further, aid, and indorse. For a half century these industrial, reformatory homes have been in successful operation in Europe and America. Several of the States have two of these schools, and almost all have one. The schools of New Jersey, Rhode Island, Connecticut, and Michigan are particularly noted. The school at Lancaster, Ohio, is one of the most famous. It has over one thousand pupils, and a farm of twelve hundred acres. Everything is done in these schools to make them beautiful, homelike, and to avoid all the attributes of a penal and become distinctively an educational institution. Carefully prepared statistics prove that *90 per cent of the pupils in these schools become good citizens.*

To save the criminally inclined youth of this State; to take their corrupting influence from our streets; to train and educate them men-

tally, morally, and physically, so that they will spend their manhood years as farmers, mechanics, and honest laborers, instead of in penitentiaries and insane asylums; to make these boys the bulwark and pride of the State, instead of the burden and shame of our commonwealth—these are the objects of this school, and this is the cause we plead.

Very respectfully yours,

HERVEY LINDLEY, President,
JAS. R. LOWE,
JOSIAH SIMS,

Trustees of the State Reform School for Juvenile Offenders.

WHITTIER, November 28, 1890.

FIRST BIENNIAL REPORT

OF THE

SECRETARY

OF THE

PRESTON SCHOOL OF INDUSTRY

(AT IONE),

DECEMBER 31, 1890.



SACRAMENTO:

STATE OFFICE, : : : : : J. D. YOUNG, SUPT. STATE PRINTING.
1890.

DIRECTORS OF THE PRESTON SCHOOL OF INDUSTRY.

ROBT. T. DEVLIN, President	Sacramento.
CHARLES SONNTAG	San Francisco.
EDGAR J. DEPUE	San Francisco.
JOSEPH CRAIG	Woodland.
PATRICK REDDY	San Francisco.

DECEMBER 31, 1890.

To his Excellency R. W. WATERMAN, Governor of California:

In our report made November 15, 1890, we called attention to the necessity of additional appropriations for the completion of the Preston School of Industry, at Ione, but we were unable at that time to suggest the amount that would be required. Since the rendition of that report, our Secretary, Mr. Brainard F. Smith, has carefully computed, after consultation with our architect, the various amounts that they both consider requisite. For your information, and that of the Legislature, we file the report of Mr. Smith as a supplemental report.

ROBT. T. DEVLIN,
P. REDDY,
EDGAR J. DEPUE,
JOSEPH CRAIG,
State Board of Prison Directors.

REPORT.

To the honorable the State Board of Prison Directors:

GENTLEMEN: As nearly two years have now lapsed since the creation of the Preston School of Industry by legislative enactment, it may not be amiss to refresh your memories by a short history of Senate Bill No. 402—this bill being the parent from whose loins the present Act sprang. It may not be inappropriate also to give a resumé of your official acts as Directors of this School of Industry since the approval of the Act by Governor R. W. Waterman, on March 11, 1889.

Senate Bill No. 402 was originally drawn up by Senator E. M. Preston, of Nevada County, and introduced by him January 29, 1889. It was referred to the Committee on State Prisons and Prison Buildings. The bill, in its primitive form, provided for the establishment of a "State Reform School" at or near the town of Folsom, in the county of Sacramento, and appropriated \$160,000 for the purpose of carrying out the provisions of the bill.

The reasons that actuated Senator Preston in selecting and naming Folsom for the location of the school, and in designating \$160,000 as the amount to be appropriated, were many, varied, and complex. As the Legislature, deeming it best not to place the school in close juxtaposition to a State Prison, enacted that it should be established in Amador County, it would be superfluous and unnecessary to give the Senator's motives in choosing Folsom as the site, except so far as they influenced him in naming the original sum mentioned to be appropriated. But since the location proposed had a very material and important bearing upon the amount of money asked for, and since all your actions as Directors have been vitally affected by the sum given you by the Legislature, it seems especially proper and just that some of the reasons should be given, in this history of Senate Bill No. 402, why Senator Preston designated \$160,000 as the proper amount to be appropriated.

Senator Preston saw a magnificent quarry of granite within a stone's throw of the proposed site, belonging to the State, fully opened and easy of access; a railroad, with stone cars running from this quarry to the contemplated location of the buildings, all the appliances, tools, machinery, etc., for rapidly and successfully quarrying and delivering this granite; brick-clay and wood in abundance upon the selected grounds, for the making of bricks; sand and gravel for mortar and concrete, without limit in the American River, close to hand—all belonging to the State. He saw a State Prison full of brawn, brain, and convict muscle to be utilized in the working of stone, in the making and laying of bricks, and in all the other branches of labor connected with and pertaining to the erection of buildings. He saw wagons, horses, tools, and implements of all sorts, belonging to the State Prison, to aid felon labor in the work of construction. Within half a mile from the selected location was a grand water power being developed, and a power house in process of erection at Folsom Prison for the utilization

of this power in the generation of electric light, in the pumping of water for irrigation and domestic purposes, and for its application to mechanical and other manufacturing uses as a substitute for steam power. He found a gas house with a gas machine at Folsom Prison for the making of illuminating gas for the benefit of this proposed school. He learned that there were over four hundred acres of land surrounding the prison, some of which could be diverted to the uses of this institution—everything belonging to the State, and all to be utilized and used in the erection and establishment of this State Reform School without cost to the State.

With this end in view, Senate Bill No. 402, as proposed by Senator Preston, contained the following provisions:

SEC. 5. The Board is authorized and empowered to set apart and occupy so much of the otherwise unoccupied land, now owned or that may be hereafter owned or acquired by the State at or near the town of Folsom, for the use and occupancy of the said institution, or to purchase such lands adjacent to the prison tract as may be deemed necessary.

SEC. 7. The Board is authorized and empowered in the erection of buildings and the improvements, to use such supplies and materials from the prison at Folsom as may be available, and as can be diverted to such use without material detriment to the welfare of the prison: including convict labor, water and water power, electric power, rock from the quarries, and such other appliances, or articles manufactured at the prison, as may be required.

SEC. 8. From and after the time that the premises are ready for occupancy the Board may divert to said premises such water and water power, electric currents, illuminating gas, articles manufactured in the prison, and other appliances from the prison premises as may be required, and as can, in their opinion, be thus diverted without material injury to the State Prison.

With these provisions incorporated in the bill, Senator Preston reasoned that \$160,000 would be ample to build and equip an institution second to none in the State. Those who assisted him in the framing of his bill agreed with him fully as to the sufficiency of the amount designated, subject to and under these specifications respecting location, prison labor, prison supplies, etc., but under no other circumstances. In fixing the figures at \$160,000 there was no other idea entertained or considered than that this sum would be adequate to establish a State Reform School, provided there should be no expenditure of money for any of the matters and things mentioned as belonging to the State and capable of being transferred and used by the Board. Should the institution be established at any other location in the State, a like condition of favorable circumstances could not occur or exist, and under no other possible surroundings or contingencies would \$160,000 be ample, sufficient, and adequate.

The promoters and friends of this measure, for saving and educating a class of the young, apparently doomed to abject ignorance and a life of criminal pursuits, fully and thoroughly appreciated the fact that unless this crime curing and crime preventive institution was erected at Folsom, by the means and methods proposed, the amount asked for would be utterly insignificant and insufficient for its requirements. It is a sad commentary on the moral status of our times when estimates are given by reliable authorities, placing the number of boys in our State who are fit candidates for reformatory institutions at from one thousand five hundred to two thousand. The cry has been coming from the lips of nearly every Judge of every Court in our land, "What shall we do with these boys!" Our penitentiaries are filled, not with old criminals, but with young felons. The hearts of the observing are sad-

dened as they contemplate the rapidly increasing number of boys of tender years brought before our Courts for punishment.

Senator Preston and his confreres knew that no small or limited accommodations would be equal to the demands of our erring boys. He and his associates in the drafting of this reformatory measure weighed well in their minds the present and future requirements of the proposed Reform School, and reckoned to a certainty that buildings must be erected and provisions made to accommodate from two hundred and fifty to five hundred inmates, at the very least, from the time of the throwing open of its portals for their reception.

All these points were considered in the framing of the original bill, and assisted in fixing the sum asked for at \$160,000.

So much for the ideas of Senator Preston and his friends regarding the location of the State Reform School at Folsom and his reasons for asking for an appropriation of \$160,000.

As said before, this Senate Bill No. 402 was referred to the Committee on State Prisons and Prison Buildings.

When returned to the Senate, it was in a modified and changed form. Instead of being designated as "The State Reform School," the institution is named "The Preston School of Industry," in honor of the framer and father of the original measure. The location is changed from "at or near Folsom, in the county of Sacramento," to "at or within a convenient distance from Ione City, in the county of Amador." Where the original bill provided for the setting apart of land, water power, electric power and electric currents, illuminating gas, etc., the change in location makes it imperative for the State to purchase from one hundred to three hundred acres of land and the buying of water facilities sufficient for the uses of said school and for power in operating machinery. Aside from these changes and modifications, the bill, as returned by the committee with its approval, was essentially unchanged from its primitive form. But these alterations were like removing its heart and lungs.

The advocates and engineers who so successfully brought about the change in location were conscious that an increase in appropriation could not be asked, they being shrewd enough to know that should a larger amount be petitioned for, all hopes of accomplishing their efforts would be lost, for the committee would then refuse the substitution of sites. For this reason no variation appeared in the section fixing the appropriation at \$160,000.

Suffice it to say, that the amended measure passed both the Assembly and the Senate by an almost unanimous vote, and was approved by Governor R. W. Waterman March 11, 1889.

Such is the history of the creation of the Preston School of Industry by legislative enactment.

OFFICIAL ACTS OF THE BOARD OF DIRECTORS.

On March 11, 1889, began your duties and responsibilities as Directors of the Preston School of Industry.

It may be well to preface a resumé of your official acts by a statement of some of the difficulties under which you labored, and the perplex and complex questions you were called upon to answer.

The proposition of a suitable site, having water facilities sufficient for the uses of the school and for power in operating machinery, was a hard

one to solve. Remember, there was no latitude given you to figure the problem as to whether coal, costing from \$1 50 to \$2 per ton, would not be a cheaper power in operating machinery than a water system, with its long lines of ditches, pipes, flumes, etc. Suitable sites having water facilities required by the Act are by no means plentiful. Like angels' visits, they are few and far between.

It was no simple question to settle as to the amount of water power adequate to fill the demands of the institution. It was no easy matter to select a site within a convenient distance both to Ione City and to a water power. Water powers convenient to populous cities and communities are extremely rare. Water powers, with water rights and privileges handy to towns situated as Ione, are valuable properties, and you found difficulties of a financial nature staring you in the face. One of the queries was: How much money could or should you invest for the State in water rights with water privileges for power and other purposes?

To have a thing, in the eyes of the law, is to own it. To own water rights and water powers one must have a title to them; and every one versed in such matters knows that there is no title so fickle, unstable, and uncertain as a title to water rights. No title so hard to establish and prove as the ownership of water. It is more a title of testimony than of record. In searching the title of one right, it becomes necessary to examine the titles and claims of every other water right upon the same watershed. The difficulties encompassing your search for a clear and absolute title to the State for water privileges sufficient for the uses prescribed were great and extended.

You met with perplexities when it came to a selection of one system in preference to others. Each system had its advantages and its disadvantages. No single proposition was perfect or an ideal system of water power. How well and how successfully you met and overcame all obstacles and solved all perplexing problems, the results best show.

The first official act of your honorable Board was a preliminary visit to Ione City on March 23, 1889. An informal meeting was held with the residents of that section for the purpose of gaining general information. It was a spying out of the land.

After due deliberation a blank form was drawn up for the use of those desiring to make offers of sites and of water privileges as per the conditions of the Act. Advertisements were inserted in two of the Amador County papers, for the space of eight weeks, calling for offers of sites, water, etc.

In pursuance with the terms of this advertisement, the Board met in Ione City on July 27, 1889, to open the sealed bids received. Twenty-two different sites were offered and six sources of water supply.

The selection of a location with water facilities for power and other purposes, requiring a knowledge of the science of civil and hydraulic engineering, the Board decided to employ the services of Col. A. W. von Schmidt, he being an engineer of note, to investigate into and report upon such matters before any action should be taken upon the offers made.

Pending these investigations Robert T. Devlin, President of the Board, by virtue of a resolution by the Board, and in accordance with a provision in the Act establishing the school, visited similar institutions in practical operation, and of the best repute in the older Eastern States,

and personally inspected and investigated into their principles and workings, their systems of government, instruction, and discipline, for the information and benefit of the Board. The result of this visit of inspection has been embodied in an extended report by him and published in pamphlet form by the State Printer.

I would state, parenthetically, that the plans adopted by the Board for the main Administration Building, with its annex, as submitted by the architect of the Board, are modified copies of the plans of the State Reform School of the State of Minnesota, obtained by President Devlin while East, the buildings being somewhat reduced in size by the architect, owing to the smallness of the appropriation at your command. The plans for the cottages are also taken from drawings of like buildings inspected by him while on his tour of observation, changed to meet the climatic requirements and particular wants of this locality.

On November 29, 1889, soon after the return of President Devlin, the Board met, and Colonel von Schmidt presented his report.

In general, he condemned the various sites offered, in conjunction with the water powers and water supplies proposed. His condemnation of the water powers and water supplies was moderated, both in this report and a supplemental one made by him, by affirming that ample power and a sufficiency of water for all purposes could be obtained by the making of a reservoir for the storage of water at a place called and known as the Henderson Place, situated about four miles distant from Ione City.

After consideration, the Board resolved to readvertise for offers of sites with water facilities. This conclusion was arrived at from the imperfect and indefinite manner in which many of the water offers had been made, coupled with a desire to do justice to all those having locations and water to offer.

Accordingly, new offers were solicited by readvertisement, and, upon December 28, 1889, the Board met to receive bids. Seventeen offers of sites were received, and six water systems.

It was at this meeting that the Board resolved: "no tract of land outside a radius of three miles from the railroad depot at Ione should be purchased, if a suitable site could be obtained within such limits," it being of the opinion that all locations outside of this limit were not within a convenient distance to Ione City.

Eventually all offers of land were rejected—some of the sites offered not being suitable, and others being quoted at figures higher than the Board felt justified in accepting for the State.

Thereupon the Ione Coal and Iron Company, a corporation owning large tracts of land in the vicinity of Ione City, upon solicitation by the Board, offered to sell the State two hundred and thirty acres at a lower price than any heretofore offered, and to generously donate one hundred acres, allowing the Board to select the land from the company's holdings. The offer of this company was accepted, and a tract of land chosen lying to the north of and about one half mile distant from Ione City, containing three hundred and thirty and twenty-nine one hundredths acres.

From the several water propositions presented, there was one that seemed more feasible, reasonable, and satisfactory to the Board than the others. This proposition carried with it the absolute and sole right and title to the first seven hundred and fifty inches, miner's measurement,

of the waters of Sutter Creek—two water ditches, with all their rights of way, flumes, pipe-lines, etc., of a delivery capacity of from four hundred to five hundred miner's inches—with a pressure of not less than two hundred and twenty-five feet on the highest point of ground upon the site selected as a location for the school; also, forty-nine and seventeen one hundredths acres of land, with a substantial dam erected thereon fifty feet high and five hundred and fifty feet long, provided with all the proper and necessary waste ways, water pipes, water gates, etc., for the forming of a reservoir with a storage capacity of about three hundred million gallons of water. There was further attached to this proposition, a guarantee bond that the water and water rights offered, appurtenant to Sutter Creek, should give during six months in the year seven hundred and fifty inches of water, measured under a four-inch pressure, and that the water and water rights, together with the water stored in the reservoir, should give at the lowest stage of the water at least two hundred and fifty inches, measured under a four-inch pressure, and not less than two hundred and fifty inches at all times.

Before rejecting the other water offers, however, the Board appointed S. F. Taylor, a civil engineer of prominence, to examine fully and thoroughly into the merits of the proposition referred to. His report in part was as follows (report dated March 3, 1890):

"The Henderson reservoir site is situated about four miles northeast from the town of Ione, in Amador County, and by the construction of a dam sixty feet in height will contain in round numbers twenty-nine acres, and will have a capacity of 409,800,000 gallons. As to the flow of water in Sutter Creek, from which the supply is taken, I found from actual measurements to contain 102 square feet, with a velocity of 29.7 feet per second, equal to 114,000 miner's inches for ten hours. By careful inquiry and examination I am satisfied that Sutter Creek above the dam will supply for six months in the year a water area of sixteen square feet, equal to 1,700 miner's inches for ten hours. While I have calculated on only six months' flow of water in Sutter Creek, there is a certainty of its being from eight to nine months, and this year the entire twelve months.

"As to motive power desired, I am slightly in the dark, but assuming one hundred and thirty horse-power will be all that is needed or desired, I have based my calculations on that amount for the capacity of the reservoir. One hundred and thirty horse-power with 200 feet pressure requires 240,000 cubic feet per day, or 38,400,000 cubic feet for six months, or one hundred and sixty days of ten hours. There still remains 16,243,216 cubic feet for irrigation purposes (the reservoir containing 54,643,216 cubic feet), which at three feet per day of ten hours (largely in excess of what can possibly be used), you will have water for one hundred and fifty days, or five months.

"For drinking and domestic purposes I consider the water of Sutter Creek, as it now runs, far more wholesome than the Sacramento River, or the Alameda Creek, which is pouring into reservoirs for San Francisco use.

"The ditches which convey the waters of Sutter Creek to the reservoir site and to the Ione Coal and Iron Company's property are of 575 inches capacity and are in good condition, and could be enlarged to 750 inches at comparatively small expense.

"As to the reservoir site offered and obtainable, there is certainly none better in the State, and as to the water supply in Sutter Creek, there is unquestionably enough for any and all purposes, and I certainly recommend their purchase."

Colonel A. W. von Schmidt, in a supplemental report made to the Board, stated, referring to the reservoir offered in this proposition: "With a dam 50 feet high the water can stand at 40 feet and will cover about 30 acres of land. The average depth will be 30 feet; in gallons, 294,030,000. A Pelton waterwheel, with a head of 250 feet, distance, three miles of pipe, fall, 1 foot in 63 feet, will give one hundred and eighteen horse-power; will use 295 cubic feet per minute, or 2,212 gallons; for ten hours, 1,327,200 gallons.

"Now, we have in the reservoir, say, 294,030,000 gallons, which divided by 1,327,200, equals 222 days, which would be the supply in reservoir. Taking 365 days for the year, less 54 Sundays, equals 311 working days, less 222 days water in reservoir, equals 89 days shortage.

"But we can calculate on five months of rain to replenish the reservoir, therefore you will have all the water and power for one hundred horse-power, as above stated, by this reservoir system. This system gives you clear water from Mule Creek; the reservoir will fill every winter, and there are no tailings from quartz mills to contaminate the water."

The report of Engineer Taylor being favorable to the Sutter Creek water system, taken in conjunction with the Henderson reservoir, and Engineer von Schmidt joining with him in commendation of the reservoir site and its storage capacity, the Board concluded to accept this offer, provided satisfactory, clear, and valid titles could be given to the State therefor, and a contract was made and entered into with the parties offering the water rights, ditches, reservoir site, etc., to that effect.

The firm of Cross & Denson, attorneys at law, were employed to examine into and pass upon the titles to all the properties mentioned heretofore as having been favorably considered by the Board.

These attorneys rendered written opinions, stating that they found the titles to all the lands offered were vested in the parties offering them to the State, and that proper deeds or grants from them would convey and vest good and valid fee simple titles in the grantee.

In the matter of water and water rights they filed the following written opinion:

SAN FRANCISCO, June 12, 1890.

To the honorable the State Board of Prison Directors:

GENTS: We have, in compliance with your request, made an examination into the matter of water rights on Sutter Creek, in Amador County, in this State. As you are well aware, the title to running water is a very difficult and embarrassing question, owing chiefly to the fact that the records, even when complete, are not a reliable guide as in the case of title to land. Most of the waters flowing in the creeks of the foothill regions, especially in the mining districts of California, were appropriated in the early days of the State's history, when business was usually done in haste, and seldom with accuracy; and while valid appropriations of the waters were made and perfect titles to the flow and use of waters acquired, it is seldom that a good and complete chain of record to a water right can be found. And since the right to the waters of a stream depends mainly upon the facts of actual appropriation and continuous diversion, it becomes necessary in determining as to such rights to examine the records, and in addition thereto also to investigate the facts independent of the records.

This case is not an exception to the general rule as to incompleteness of chain of record title; but we have been furnished with a map made by Engineer Brown, under your order, from actual surveys and inspection; and with many affidavits made by persons who are or have been residents of the vicinity, and whose intimate knowledge of the facts enables them to speak with intelligence and gives their testimony great weight; and from the facts and information thus presented, and supplementing the records, we are of opinion

that B. and M. Isaacs have the first and superior right, over all other persons, to the appropriation, diversion, and use of more than 750 inches (miner's measurement) of the waters of Sutter Creek, and which may be diverted at the head of the Empire Ditch, or at any point below. And they also have the right under the law to run said quantity of water into reservoir and store the same.

We submit herewith all abstracts of records, affidavits, and memoranda, the map made by Mr. Brown, and an abstract or tabulated classification of the more material data, which may be preserved among your archives.

Respectfully submitted.

CROSS & DENSON,
Attorneys at Law.

With these reports and opinions before the Board—Engineer Taylor's as to the quantity and sufficiency of water and water power, and the attorneys at law, Cross & Denson, as to the validity of the titles—it finally closed with the parties proffering the properties for sale, and the State of California became the owner of them in the latter part of June, 1890.

The Board thereupon elected Schulze & Meeker as the architects to prepare plans and specifications of a main Administration Building, with an annex, for the Preston School of Industry, to be erected upon the selected site. The general plans as submitted by them were formally adopted, and the buildings are now in process of construction.

The main Administration Building will have a frontage of one hundred and sixty-eight feet, and a depth of fifty feet; is to be three stories high above a basement. From the rear center will extend a corridor thirty feet in length and nine feet wide, connecting the main Administration Building with its annex, which will be two stories high above a basement. The main Administration Building is to be built of common bricks, faced with Sacramento stock bricks (bricks of a quality and finish a medium between common and pressed bricks), and trimmed with Ione red sandstone. There is to be a water and clock tower, one hundred and forty-eight feet high, to the right of the main entrance to the building. The corridor and annex are to be built of common bricks. The structure, when finished, will be a model of its kind, for the Board has followed the implied wishes of the Legislature in combining all the excellencies of edifices of a similar character found in the East by President Devlin.

Contracts have been let for such portions of the work of erection as would come within the limit of the present appropriation. The amount of money being at your disposal for the making of such contracts being about \$75,000—the remainder having been expended in the purchase of land, the expenses incidental to and including the purchase of the water system, reservoir site, and the building of the dam, and other expenditures necessary in the various interests of the school. A full and complete statement of all the moneys received from the State Treasurer upon warrants drawn by the State Controller, and how the same has been expended, is hereto attached. Also a statement of the contracts entered into by the Board, and which are payable out of the present appropriation.

ESTIMATES OF APPROPRIATION NECESSARY TO COMPLETE AND FURNISH THE
PRESTON SCHOOL OF INDUSTRY, AND PROVIDE FOR THE MAINTENANCE
THEREOF.

In compliance to the request of the Board, I have, so far as possible, prepared estimates of cost necessary to complete and furnish the school,

so as to place it in full working order for the reception of the wards of the State, and for their maintenance for the next two years.

I have endeavored to limit myself to the actual and pressing wants of the institution, and have constantly kept well in mind your instructions and expressed intentions of not to petition the Legislature for a larger appropriation than is actually demanded and absolutely necessary under existing circumstances.

ESTIMATES OF COST.

Completion of the main Administration Building and its annex (exclusive of tower), including elevator, fire and burglar-proof vault, ovens, artificial stone work, joiners' work, stair work, painting, plastering, tiling, plumbing and sewerage, heating, glass, mantels and grates, hardware, roofing, etc.	\$61,800 00
Finishing tower	\$8,250 00
Tower clock	1,880 00
Three cottages, or family homes, capacity forty inmates	10,130 00
One stable, capacity twenty horses	60,000 00
One barn, capacity twenty cows	9,500 00
One Commissary Building	7,500 00
One Power and Trades School Building (shoe and harness shop, blacksmith and iron working shop, tailor and sewing shop, carpenter and woodworking shop, tin and plumbing shop, printing office, electric light machinery room, ice machinery room, power machinery room, sawmill room, laundry).	8,750 00
Entrance gateways	35,000 00
Architect's fees	1,800 00
	9,724 00
Total for finishing school	\$204,204 00
The above estimates furnished by Henry A. Schulze, Architect of the Board.	

Furnishing and Fitting of Buildings.

Blankets, comforters, etc.	\$3,500 00
Estimates by Levi Strauss & Co., Murphy, Grant & Co., Golden Gate Woolen Manufacturing Co., and California Furniture Co.	
Carpets, oilcloths, etc.	3,700 00
Estimates by C. M. Plum & Co., W. and J. Sloane & Co., D. N. and E. Walter & Co.	
Crockery	900 00
Estimates by Wanglenhein, Sternheim & Co., Nathan, Dohrmann & Co.	
Bed linen, table linen, toweling, etc.	1,350 00
Estimates by Levi Strauss & Co., Murphy, Grant & Co.	
Ranges, kitchen utensils, etc.	1,700 00
Estimates by Holbrook, Merrill & Stetson, W. W. Montague & Co., Geo. W. Tay & Co.	
Wood and willowware	100 00
Estimates by Armes & Dallam, A. S. Hopkins & Bro.	
Furniture	13,475 00
Estimates by California Furniture Co., C. M. Plum & Co., West Coast Furniture Co.	
Fire hose, plugs, hose carts, etc.	1,175 00
Estimates by W. T. Y. Schenck	
Drug store outfit	775 00
Estimates by Mack & Co., Redington & Co.	
Laundry department	2,780 00
Estimates by Troy Laundry Machinery Co., Pacific Laundry Machinery Co.	
Telephone and electric call outfit	900 00
Estimates by Sunset Telephone-Telegraph Co.	
Electric light system	15,000 00
Estimates by Thomson-Houston Electric Co., Westinghouse Electric Co., Edison General Electric Co.	
Office fittings and supplies	1,000 00
Estimates by H. S. Crocker & Co.	
Hay and store scales	600 00
Estimates by Howe Scale Co., Fairbanks Scale Co.	
	46,995 00
Amount carried forward	\$251,199 00

Amount brought forward \$251,199 00

General Furnishings and Fittings.

Horses, cows, hogs, etc.	\$5,500 00	
Estimates by B. Isaacs, Wm. Woolsey.		
Wagons and other vehicles.	1,875 00	
Estimates by Studebaker Bros. Mfg. Co., Baker & Hamilton, Deere Implement Co.		
Harness	500 00	
Estimates by A. A. Van Voorhies & Co., Main & Winchester, Studebaker Bros. Mfg. Co.		
Farm tools and implements	900 00	
Estimates by Baker & Hamilton, Deere Implement Co.		
Fence around tract	2,000 00	
Estimates by B. Isaacs & Bro.		
Ice machine outfit	6,000 00	
Estimates by Clot & Meese, Rix & Firth, Parke & Lacy Co.		16,775 00

Fittings and Furnishings for Trades School.

Blacksmithing and iron working	\$5,000 00	
Estimates by Baker & Hamilton, James G. Kennedy, Supt. Cogswell Institute.		
Carpentering and woodworking	7,000 00	
Estimates by Baker & Hamilton, James G. Kennedy, Supt. Cogswell Institute.		
Printing, etc.	2,000 00	
Estimates by Tatum & Bowen.		
Harnessmaking, etc.	350 00	
Estimates by A. A. Van Voorhies & Co., Main & Winchester.		
Boot and shoemaking	900 00	
Estimates by Rosseter, Smith & Stoll, Williams-Marvin Co.		
Tailoring and sewing	1,500 00	
Estimates by the Singer Sewing Machine Co.		
School-room outfit	600 00	
Estimates by Bancroft Bros. & Co.		
Tinning and plumbing	2,000 00	
Estimates by Holbrook, Merrill & Stetson.		19,350 00

General Additional Expenditures.

Stocking of farm and grounds, including labor, trees, vines, shrubbery, plants, etc.	\$15,000 00	
Sewerage system	10,000 00	
Water supply system	10,000 00	
Books for library	1,000 00	
Machinery for power house, including wheels, shaftings, pipes, etc.,	5,000 00	
		41,000 00

Maintenance Estimate.

Two hundred and twenty-five inmates, one year, \$200 each.	45,000 00	
Furnishing three cottages	6,716 60	
Total expenditures		\$380,000 00

In estimating the amount necessary to provide for the stocking of the farm and grounds, I have figured as follows:

Six laboring men at \$2 per day, twenty-five working days per month, for two years, equals	\$7,200 00	
One head farmer and gardener at \$100 per month, for two years, equals	2,400 00	
Incidentals	400 00	
Stock of trees, vines, plants, hot houses, tools for excavation works, and blastings	5,000 00	
		\$15,000 00

In some cases, perhaps, I have overestimated, but in others I have erred in underestimating the amount adequate to the needs of the institution, and undoubtedly omissions have occurred by reason of the

nature of circumstances, it being impossible to think of everything necessary to the furnishing of an institution of the size of this one.

In conclusion, I would respectfully state to the Board that I have labored to the best of my ability to protect the Board from asking for any unnecessary moneys from the Legislature, and it is my opinion that no less amount than the estimated sum will satisfy the pressing demands of the Preston School of Industry for the next two years.

My report has been delayed by the difficulties encountered in obtaining estimates from those better versed in such matters than myself.

I have to thank the Board for the many evidences of kind courtesies extended towards me in the past two years, thus making the duties of my office a genuine pleasure.

Respectfully submitted.

BRAINARD F. SMITH,
Secretary of the Preston School of Industry.

DECEMBER 31, 1890.

CASH ACCOUNT.

RECEIPTS.

Received from State Treasurer on Controller's warrants.....	\$77,195 70
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DISBURSEMENTS.

Water system accounts.....	\$60,998 67	
Real estate accounts.....	7,307 25	
Buildings accounts.....	3,150 85	
Office fixtures accounts.....	208 30	
Tools and fixtures accounts.....	170 73	
Farm accounts (clearing grounds).....	602 00	
Office rents.....	186 00	
Salaries.....	2,767 75	
Postage.....	60 00	
Traveling, etc.....	635 85	
Expense account.....	85 45	
Repairs to tools account.....	22 85	
R. T. Devlin (trip East).....	1,000 00	
		\$77,195 70

The above cash receipts and disbursements are up to and inclusive of December 31, 1890.

INDEBTEDNESS ACCOUNT.

Richardson & Gale (mason's contract).....	\$57,514 00	
Smilie Bros. (carpenter's contract).....	13,789 00	
B. & M. Isaacs (dam contract).....	2,157 00	
Timothy Hanley (excavation contract).....	437 50	
Henry A. Schulze (architect's fees).....	2,162 30	
Salary payroll and sundry claims.....	1,250 00	
		\$77,309 80

The above indebtedness account includes all contracts and claims up to and inclusive of December 31, 1890.

The indebtedness account is payable out of the present appropriation of \$160,000.

SUMMARY.

Amount appropriated for forty-first and forty-second fiscal years.....	\$160,000 00
Cash expenditures.....	\$77,195 70
Indebtedness account.....	77,309 80
Total.....	154,505 50
Balance December 31, 1890, to meet current expenses until July 1, 1891.....	\$5,494 50

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